



Australian Government

FPP10 Pulp & Paper Manufacturing Industry Training Package

Release: 1.1

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TLID3507C Operate a boom type elevating work platform1935
TLID407C Load and unload goods/cargo.....1947
TLID707C Prepare cargo for transfer with slings.....1957
TLIE607D Collect, analyse and present workplace data and information.....1968
UEPOPS341A Shut down a Steam Turbine1978
UEPOPS411A Run Up a Steam Turbine1992

Modification History

Version modification history

The version details of this endorsed Training Package are in the table below. The latest information is at the top of the table.

Version	Release Date	Comments
1.1	01/06/11	<p>New Imported Units</p> <p>The following units from FPI05 Forest and Forest Products Training Package have been added to the elective bank in FPP50110 Diploma of Pulp and Paper Process Management:</p> <ul style="list-style-type: none"> • FPICOT6205A Prepare an enterprise carbon management report • FPICOR6201A Manage sustainability in the workplace • FPICOT5208A Build and maintain community relationships • FPICOT5207A Implement sustainability in the workplace • FPICOT6201A Manage community engagement
1.0	To be added once on NTIS	Primary release, replacing FPP01

Preliminary Information

Preliminary Information

Important Note to Users

Training Packages are not static documents; they are amended periodically to reflect the latest industry practices and are version controlled. It is essential that the latest version is always used.

Check the version number before commencing training or assessment

This Training Package is Version 1, check whether this is the latest version by going to the National Training Information Service (www.ntis.gov.au) and locating information about the Training Package. Alternatively, contact *ForestWorks* at www.forestworks.com.au to confirm the latest version number.

Explanation of version number conventions

The primary release Training Package is Version 1. When changes are made to a Training Package, sometimes the version number is changed and sometimes it is not, depending on the extent of the change. When a Training Package is reviewed it is considered to be a new Training Package for the purposes of version control, and is Version 1. Do not confuse the version number with the Training Package's national code (which remains the same during its period of endorsement).

Explanation of the review date

The review date (shown on the title page and in the footer of each page) indicates when the Training Package is expected to be reviewed in the light of changes such as changing technologies and circumstances. The review date is not an expiry date. Endorsed Training Packages and their components remain current until they are reviewed or replaced.

Version modification history

The version details of this endorsed Training Package are in the table below. The latest information is at the top of the table.

Version	Release Date	Comments
1.0	To be added once on NTIS	Primary release, replacing FPP01

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How is this Training Package Different?

FPP10 is an overall improvement on the previous FPP01 Training Package as it:

- offers a new qualifications framework which increases application and flexibility for enterprises and individuals

- more accurately reflects the actual skills required by the workforce, both now and into the future
- addresses changed learner profiles by articulating current technology and updated learning environments within the training package
- includes a range of new competencies that are flexible enough to be customised to the specific needs of the enterprise
- provides learning and articulated pathways for the attainment of competencies and, ultimately, full qualifications
- accommodates the evolving and emerging needs of a diverse and changing industry
- has embedded sustainability skills within the competencies

The number of qualifications has been reduced from nine to seven and the structure has changed as follows:

- ‘manufacturing’ and ‘services’ qualifications have been replaced with:
 - Certificates II, III and IV in Pulping Operations
 - Certificates II, III and IV in Papermaking Operations
- services specialisations are now available via both pulping and papermaking operations qualifications as above.
-

FPP01 Summary of changes

The number of qualifications has been reduced from nine to seven.

Separate ‘manufacturing’ and ‘services’ qualifications no longer exist and have been replaced by:

- Certificates II, III and IV in Pulping Operations
- Certificates II, III and IV in Papermaking Operations
- Services specialisations are now available via both pulping and papermaking operations qualifications as above

The two ‘streams’ of qualifications are necessary in the pulp and paper manufacturing industry. Some mills are pulp mills, some are paper mills, and some are both. The delineation between the two groupings of qualifications enables companies to clearly differentiate between the groupings of competencies based on the mills’ operations.

The composition of qualifications is different, mainly regarding core units and new Support electives. The Support electives enable flexibility in the choice of what were, for the most part, ‘core’ units in the old (FPP01) Training Package. They support the industry specific elective units.

The Industry specific elective units are the ‘lead’ units that shape the qualification.

There are a few unit ‘groups’ that run across both types of operations – pulp *and* paper, so the corresponding units need to be included in both qualification ‘streams’ (Chemical recovery, Water services, Steam generation and Power generation). The co-located industry specialisations could have formed a separate grouping of qualifications, however in the interests of decreasing the number of qualifications overall **from nine to seven** qualifications, all streams have been ‘relocated’ to make more sense to industry, with some being co-located. Sustainability units are included, in line with government priorities on sustainability skills. A separate ‘housekeeping’ core unit is added at Certificate II.

A warehousing stream has been added and comprises relevant units taken from the Finishing and Converting industry specialisation.

The number of units of competency required for each qualification has been clearly stated, in line with government policy. The overall number of units in the new qualifications has increased to more accurately reflect work requirements in the industry.

As part of the Training Package review process, skills for sustainability have been incorporated into all FPP10 units in the following sections:

- Required knowledge
- Range statement/s
-

New FPP10 V.1. units

- FPPSUS210A Apply sustainable work practices/policies, packaged at Certificates II, III and IV
- FPPSUS510A Develop workplace policy and procedures for sustainability, at Diploma level

Imported units as electives - ‘Support’ skills

- MSACMT271A Use sustainable environmental practices
- MSACMT270A Use sustainable energy practices
- MSAENV472B Implement and monitor environmentally sustainable work practices

Code changes

Within each Training Package, each unit of competency has a unique code. Unit of competency codes are assigned when the Training Package is endorsed, or when new units of competency are added to an existing endorsed Training Package. Unit codes are developed as follows:

- a typical code is made up of 10 characters, normally a mixture of uppercase letters and numbers, as in FPPNUM210A
- the first three characters signify the Training Package - FPP Pulp and Paper Manufacturing Industry Training Package in the above example
- the next three characters indicate an industry skill area - ‘numeracy’ in the above example
- the first numeric character indicates the AQF level where the unit of competency ‘first appears’ - Certificate II level in the above example
- the following two numeric characters identify the position in the sequence of the unit for that stream
- the last character is always a letter and identifies the unit of competency version. An ‘A’ at the end of the code indicates that this is the original unit of competency. All units within this new Training Package are coded ‘A’

The upper case letters in the code for Pulp and Paper Units of Competency correspond to the industry skill area as follows:

FPPCPP Coated paper processes

	Chemical preparation
FPPCPR	
FPPCSK	Computer skills
FPPDEO	Dry end operations
FPPENV	Environmental monitoring
FPPEPG	Electrical power generation
FPPFCO	Finishing and converting
FPPHWP	Handling and preparing waste paper for pulp production
FPPMHV	Materials handling vehicles
FPPNUM	Numeracy
FPPOHS	Occupational health and safety
FPPPLN	Planning and organising
FPPPRM	Preventative maintenance
FPPPRS	Problem solving
FPPPRV	Production variations/operations
FPPPUL	Pulping operations
FPPQAS	Quality assurance
FPPREC	Chemical recovery operations
FPPREL	Relationship management
FPPRES	Primary resource operations
FPPSPR	Stock preparation operations
FPPSTM	Steam generation
FPPSUS	Sustainability
FPPWAR	Warehousing and dispatch
FPPWAS	Water services

FPPWEO Wet end operations

FPPWPO Waste paper operations

Mapping to Previous Training Package FPP01

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
FPPCPP210A Monitor and control coated paper processes	FPPOLC3A Monitor and Control Coated Paper Systems Operation	Unit updated and equivalent to FPPOLC3A Monitor and Control Coated Paper Systems Operation	E
FPPCPP320A Prepare and start up coated paper processes	FPPOLC1B Prepare and Start-up Coated Paper Systems Operation	Unit updated and equivalent to FPPOLC1B Prepare and Start-up Coated Paper Systems Operation	E
FPPCPP330A Co-ordinate the shutdown of coated paper processes	FPPOLC4A Co-ordinate Coated Paper Systems Shutdown	Unit updated and equivalent to FPPOLC4A Co-ordinate Coated Paper Systems Shutdown	E
FPPCPP440A Troubleshoot and rectify coated paper processes	FPPOLC5A Troubleshoot and Rectify Coated Paper Systems	Unit updated and equivalent to FPPOLC5A Troubleshoot and Rectify Coated Paper Systems	E
FPPCPR210A Prepare chemical products	FPPCPR1A Prepare Chemicals	Unit updated but not equivalent to FPPCPR1A Prepare Chemicals	N
FPPCSK310A Operate process	FPPCSK2B Operate a process control computer system	Unit updated but not equivalent to FPPCSK2B Operate a	N

Updated unit code and title FPP10		Previous FPP01 unit	Relationship to FPP01 unit	
control equipment			process control computer system	
FPPDEO210A Monitor and control dry end operations	FPPDEO3A Monitor and Control Dry End Operations		Unit updated but not equivalent to FPPDEO3A Monitor and Control Dry End Operations	N
FPPDEO320A Prepare and start up dry end operations	FPPDEO1B Prepare and Start-up Dry End Operations		Unit updated and equivalent to FPPDEO1B Prepare and Start-up Dry End Operations	E
FPPDEO330A Co-ordinate and implement dry end shutdown	FPPDEO5A Co-ordinate and Implement Dry End Shutdown		Unit updated and equivalent to FPPDEO5A Co-ordinate and Implement Dry End Shutdown	E
FPPDEO440A Troubleshoot and rectify dry end systems	FPPDEO4A Troubleshoot and Rectify Dry End Systems		Unit updated and equivalent to FPPDEO4A Troubleshoot and Rectify Dry End Systems	E
FPPENV210A Identify and monitor environmental discharges/emissions	FPPENV1A Identify and Monitor Environmental Discharges/Emissions		Unit updated and equivalent to FPPENV1A Identify and Monitor Environmental Discharges/Emissions	E
FPPENV320A Monitor and control environmental hazards	FPPENV2A Monitor and Control Environmental Hazards		Unit updated and equivalent to FPPENV2A Monitor and Control Environmental Hazards	E
FPPEPG210A Monitor and control power	FPPEPG2A Monitor and Control Power Generation System		Unit updated and equivalent to FPPEPG2A Monitor	E

Updated unit code and title FPP10		Previous FPP01 unit	Relationship to FPP01 unit
generation system			and Control Power Generation System
FPPEPG320A Manage a power generation system startup	FPPEPG1A Manage a Power Generation System Start-up		Unit updated and equivalent to FPPEPG1A Manage a Power Generation System Start-up
FPPEPG330A Co-ordinate power generation system shutdown	FPPEPG3A Co-ordinate Power Generation System Shutdown		Unit updated and equivalent to FPPEPG3A Co-ordinate Power Generation System Shutdown
FPPEPG440A Troubleshoot and rectify power generation system	FPPEPG5A Troubleshoot and Rectify Power Generation System		Unit updated and equivalent to FPPEPG5A Troubleshoot and Rectify Power Generation System
FPPFCO210A Monitor, control and shut down finishing and converting operations	FPPFCO2A Monitor and Control Finishing/Converting Systems Operation		Unit updated but not equivalent to FPPFCO2A Monitor and Control Finishing/Converting Systems Operations
FPPFCO320A Prepare and start up finishing/converting operations	FPPFCO1A Prepare Finishing/Converting Systems for Production		Unit updated but not equivalent to FPPFCO1A Prepare Finishing/Converting Systems for Production
FPPFCO340A Troubleshoot and rectify finishing and converting systems	FPPFCO4A Troubleshoot and Rectify Finishing and Converting Systems		Unit updated and equivalent to FPPFCO4A Troubleshoot and Rectify Finishing and Converting Systems

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
FPPHWP250 A Store and dispatch waste paper	FPPHWP6A Store and Despatch Blocks	Unit updated but not equivalent to FPPHWP6A Store and Despatch Blocks	N
FPPHWP260 A Receive waste paper	FPPHWP1A Receive Waste Paper	Unit updated and equivalent to FPPHWP1A Receive Waste Paper	E
FPPHWP270 A Unload waste paper	FPPHWP2A Unload Waste Paper	Unit updated and equivalent to FPPHWP2A Unload Waste Paper	E
FPPMHV210 A Operate overhead crane	FPPMHV2A Operate Overhead Crane	Unit updated but not equivalent to FPPMHV2A Operate Overhead Crane	N
FPPNUM210 A Estimate and calculate basic data	FPPNUM1A Estimate and Calculate Basic Data	Unit updated but not equivalent to FPPNUM1A Estimate and Calculate Basic Data	N
FPPNUM320 A Measure and calculate routine workplace data		New unit - no equivalent in FPP01	
FPPNUM430 A Calculate and analyse production and financial performance	FPPNUM4A Calculate and Analyse Production and Financial Performance	Unit updated and equivalent to FPPNUM4A Calculate and Analyse Production and Financial Performance	E
FPPOHS210A Participate in OHS processes		New unit - no equivalent in FPP01	

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
FPP0HS310A Contribute to OHS processes		New unit - no equivalent in FPP01	
FPP0HS320A Maintain OHS processes		New unit - no equivalent in FPP01	
FPP0HS410A Identify, assess and control OHS risk in own work		New unit - no equivalent in FPP01	
FPP0HS420A Manage OHS processes		New unit - no equivalent in FPP01	
FPPPLN210A Plan and undertake a routine task	FPPPLN1A Plan and Undertake a Routine Task	Unit updated and equivalent to FPPPLN1A Plan and Undertake a Routine Task	E
FPPPLN420A Plan a complex activity	FPPPLN3A Plan a Complex Activity	Unit updated and equivalent to FPPPLN3A Plan a Complex Activity	E
FPPPRM210 A Undertake operator level preventative maintenance	FPPPRM1B Operator Level Preventative Maintenance	Unit updated but not equivalent to FPPPRM1B Operator Level Preventative Maintenance	N
FPPPRM220 A Perform lubrication		New unit - no equivalent in FPP01	
FPPPRS210A Identify and rectify problems in	FPPPRS1A Solve Problems in the Workplace (basic)	New unit - no equivalent in FPP01	

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
the workplace			
FPPPRS320A Solve systemic problems in the workplace	FPPPRS2A Solve Problems in the Workplace (advanced)	New unit - no equivalent in FPP01	
FPPPRV210A Operate ancillary equipment		New unit - no equivalent in FPP01	
FPPPRV320A Co-ordinate and direct clothing changes		New unit - no equivalent in FPP01	
FPPPUL210A Monitor and control pulping operations	FPPPUL3A Monitor and Control Pulping Operations	Unit updated and equivalent to FPPPUL3A Monitor and Control Pulping Operations	E
FPPPUL250A Store and distribute pulped product	FPPPUL6A Store and Distribute Pulped Product	Unit updated and equivalent to FPPPUL6A Store and Distribute Pulped Product	E
FPPPUL320A Prepare and start up pulping system operations	FPPPUL1B Prepare and Start-up Pulping System Operations	Unit updated and equivalent to FPPPUL1B Prepare and Start-up Pulping System Operations	E
FPPPUL330A Co-ordinate and implement pulping plant shutdowns	FPPPUL5A Co-ordinate and Implement Pulping Plant Shutdowns	Unit updated and equivalent to FPPPUL5A Co-ordinate and Implement Pulping Plant Shutdowns	E
FPPPUL440A	FPPPUL4A Troubleshoot and Rectify Pulping	Unit updated and	E

Updated unit code and title FPP10		Previous FPP01 unit	Relationship to FPP01 unit	
Troubleshoot and rectify pulping processes	Systems		equivalent to FPPPUL4A Troubleshoot and Rectify Pulping Systems	
FPPQAS210A Apply basic quality practices	FPPQAS1B Apply Basic Quality Assurance Practices		Unit updated but not equivalent to FPPQAS1B Apply Basic Quality Assurance Practices	N
FPPQAS420A Co-ordinate in-process quality assurance	FPPQAS3A Co-ordinate In-Process Quality Assurance		Unit updated and equivalent to FPPQAS3A Co-ordinate In-Process Quality Assurance	E
FPPQAS430A Oversee quality assurance process	FPPQAS4A Oversee Quality Assurance Process		Unit updated and equivalent to FPPQAS4A Oversee Quality Assurance Process	E
FPPREC210A Monitor and control chemical recovery operations	FPPREC3A Monitor and Optimise Chemical Recovery Operations		Unit updated but not equivalent to FPPREC3A Monitor and Optimise Chemical Recovery Operations	N
FPPREC320A Prepare and start up chemical recovery operations	FPPREC1B Prepare and Start-up Chemical Recovery Operations		Unit updated and equivalent to FPPREC1B Prepare and Start-up Chemical Recovery Operations	E
FPPREC330A Co-ordinate and implement chemical recovery	FPPREC5A Manage Chemical Recovery Plant Shutdowns		Unit updated and equivalent to FPPREC5A Manage Chemical Recovery Plant Shutdowns	E

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
shutdowns			
FPPREC440A Troubleshoot and rectify chemical recovery operations	FPPREC4A Troubleshoot and Rectify Chemical Recovery Systems	Unit updated and equivalent to FPPREC4A Troubleshoot and Rectify Chemical Recovery Systems	E
FPPREL210A Contribute to effective working relationships		New unit - no equivalent in FPP01	
FPPRES210A Prepare and operate the woodchip production system	FPPRES5A Operate the Woodchip Production System	Unit updated but not equivalent to FPPRES5A Operate the Woodchip Production System	N
FPPRES250A Distribute woodchips	FPPRES8A Distribute Woodchips	Unit updated and equivalent to FPPRES8A Distribute Woodchips	E
FPPRES260A Receive Materials	FPPRES1A Receive Materials	Unit updated and equivalent to FPPRES1A Receive Materials	E
FPPRES270A Unload Materials	FPPRES2A Unload Materials	Unit updated and equivalent to FPPRES2A Unload Materials	E
FPPRES340A Troubleshoot and rectify primary resource operations	FPPRES9A Troubleshoot and Rectify Resource Handling Systems	Unit updated but not equivalent to FPPRES9A Troubleshoot and Rectify Resource Handling Systems	N
FPPSPR210A Monitor and	FPPSPR3A Monitor and Control Stock and Chemical Preparation Systems	Unit updated but not equivalent to	N

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
control stock preparation systems		FPPSPR3A Monitor and Control Stock and Chemical Preparation Systems	
FPPSPR320A Prepare and start up stock preparation system for production	FPPSPR1B Prepare and Start-up Stock & Chemical System for Production	Unit updated and equivalent to FPPSPR1B Prepare and Start-up Stock & Chemical System for Production	E
FPPSPR330A Co-ordinate and implement stock preparation system shutdown	FPPSPR5A Co-ordinate and Implement Stock and Chemical Preparation System Shutdown	Unit updated and equivalent to FPPSPR5A Co-ordinate and Implement Stock and Chemical Preparation System Shutdown	E
FPPSPR440A Troubleshoot and rectify stock preparation systems	FPPSPR4A Troubleshoot and Rectify Stock and Chemical Preparation Systems	Unit updated but not equivalent to FPPSPR4A Troubleshoot and Rectify Stock and Chemical Preparation Systems.	N
FPPSTM210A Monitor and control boiler operation	FPPSTM2A Monitor and Control Boiler Operation	Unit updated but not equivalent to FPPSTM2A Monitor and Control Boiler Operation	N
FPPSTM320A Manage steam boiler startup	FPPSTM1A Manage Steam Boiler Start-up	Unit updated and equivalent to FPPSTM1A Manage Steam Boiler Start-up	E
FPPSTM330A Shut down and bank steam boiler	FPPSTM3A Shutdown and Store Steam Boiler	Unit updated and equivalent to FPPSTM3A Shutdown and Store Steam Boiler	E

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit	
FPPSTM440A Troubleshoot and rectify boiler plant systems	FPPSTM4A Troubleshoot and Rectify Boiler Plant Systems	Unit updated and equivalent to FPPSTM4A Troubleshoot and Rectify Boiler Plant Systems	E
FPPSUS210A Apply sustainable work practices/policies		New unit - no equivalent in FPP01	
FPPSUS510A Develop workplace policy and procedures for sustainability		New unit - no equivalent in FPP01	
FPPWAR250 A Store product	FPPFCO5B Store Product	Unit updated and equivalent to FPPFCO5B Store Product	E
FPPWAR255 A Prepare and dispatch product	FPPFCO6B Prepare and Dispatch Product	Unit updated but not equivalent to FPPFCO6B Prepare and Dispatch Product	N
FPPWAR280 A Warehouse product packaging	FPPFCO3B Package Product	Unit updated but not equivalent to FPPFCO3B Package Product	N
FPPWAS210 A Operate water systems	FPPWAS1A Manage Water System Start-up	Unit updated but not equivalent to FPPWAS1A Manage Water System Start-up	N
FPPWAS340 A Troubleshoot and rectify	FPPWAS9A Troubleshoot and Rectify Water Systems	Unit updated and equivalent to FPPWAS9A Troubleshoot and Rectify Water	E

Updated unit code and title FPP10		Previous FPP01 unit	Relationship to FPP01 unit
water systems		Systems	
FPPWEO210 A Monitor and control wet end operations	FPPWEO3A Monitor and Control Wet End Operations	Unit updated but not equivalent to FPPWEO3A Monitor and Control Wet End Operations	N
FPPWEO320 A Prepare and start up wet end operations	FPPWEO1B Prepare and Start-up Wet End Operations	Unit updated and equivalent to FPPWEO1B Prepare and Start-up Wet End Operations	E
FPPWEO330 A Co-ordinate and implement wet end shutdown	FPPWEO5A Co-ordinate and Implement Wet End Shutdown	Unit updated and equivalent to FPPWEO5A Co-ordinate and Implement Wet End Shutdown	E
FPPWEO440 A Troubleshoot and rectify wet end systems	FPPWEO4A Troubleshoot and Rectify Wet End Systems	Unit updated but not equivalent to FPPWEO4A Troubleshoot and Rectify Wet End Systems	N
FPPWPO210 A Monitor and control waste paper operations	FPPWPO3A Monitor and Control Waste Paper Plant Operations	Unit updated and equivalent to FPPWPO3A Monitor and Control Waste Paper Plant Operations	E
FPPWPO320 A Prepare and start up waste paper operations	FPPWPO1B Prepare and Start-up Waste Paper Operations	Unit updated and equivalent to FPPWPO1B Prepare and Start-up Waste Paper Operations	E
FPPWPO330 A Co-ordinate and implement waste paper	FPPWPO5A Co-ordinate and Implement Waste Paper Plant Shutdown	Unit updated and equivalent to FPPWPO5A Co-ordinate and Implement Waste	E

Updated unit code and title FPP10		Previous FPP01 unit	Relationship to FPP01 unit
shutdown			Paper Plant Shutdown
FPPWPO440 A Troubleshoot and rectify waste paper operations	FPPWPO4A Troubleshoot and Rectify Waste Paper Plant Systems		Unit updated and equivalent to FPPWPO4A Troubleshoot and Rectify Waste Paper Plant Systems
			E

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Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit
Deleted FPP units		
	FPPAID1A Apply Basic First Aid Techniques	Unit deleted and replaced with HLTFA301B Apply first aid
	FPPAID2A Administer First Aid Procedures	Unit deleted and replaced with MSAPMOHS220A Provide initial first aid response
	FPPCOM1A Use Basic Workplace Communication	Unit deleted and replaced with BSBCMM101A Apply basic communication skills
	FPPCOM2A Present Verbal and Written Workplace Information	Unit deleted and replaced with BSBCMM201A Communicate in the workplace
	FPPCOM3A Use Advanced Workplace Communication	Unit deleted and replaced with TLIE607D Collect, analyse and present workplace data and information
	FPPCOM4A Engage in Complex Workplace Communication	Unit deleted and replaced with TLIE607D Collect, analyse and present workplace data and information
	FPPCSK1A Access and Modify Computer Records and Documents	Unit deleted and replaced with MSAPMOPS212A Use enterprise computer or data systems

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit
Deleted FPP units		
	FPPEME1A Prepare Equipment for an Emergency Response	Unit deleted and replaced with PMAOHS211B Prepare equipment for emergency response
	FPPEME2B Respond to an Emergency Situation	Unit deleted and replaced with MSAPMOHS110A Follow emergency response procedures
	FPPEPG4A Conduct a Technical Inspection of Power Generation Plant and Equipment	Unit deleted – no equivalent in FPP10
	FPPHTL1B Use Hand Held Tools	Unit deleted and replaced with MEM18001C Use hand tools
	FPPHWP3A Set Up and Operate Sorting/Pressing Line	Unit deleted – no equivalent in FPP10
	FPPHWP4A Manage System Shutdowns	Unit deleted and incorporated into existing shutdown units
	FPPHWP5A Conduct Paper Grade Quality Assessments	Unit deleted – no equivalent in FPP10
	FPPMHV1A Operate Materials Handling Vehicles and Equipment	Unit deleted and various TLI units imported to cover specialist areas
	FPPNUM2A Measure and Calculate Routine Information	Unit deleted and content incorporated in FPPNUM210A Estimate and Calculate Basic Data
	FPPNUM3A Calculate basic performance measures	Unit deleted and content incorporated in FPPNUM210A Estimate and calculate basic data
	FPPOHS1A Follow defined OH&S procedures	Unit deleted – no equivalent in FPP10
	FPPOHS2B Implement and monitor OH&S policies and procedures within the work	Unit deleted – no equivalent in FPP10

Updated unit code and title FPP10	Previous FPP01 unit	Relationship to FPP01 unit
Deleted FPP units		
	area	
	FPPOHS3B Maintain and evaluate OH&S system	Unit deleted – no equivalent in FPP10
	FPPOHS4A Establish OH&S system	Unit deleted- no equivalent in FPP10
	FPPPLN2A Plan a Complete Activity	Unit deleted and replaced with MEM14005A Plan a complete activity and MEM30020A Develop and manage a plan for a simple manufacturing related project
	FPPPRS3A Troubleshoot and Rectify Pulp and Paper Systems	Unit deleted – no equivalent in FPP10
	FPPQAS2A Maintain Quality in Section/Sub-System	Unit deleted and replaced with MSACMT251A Apply quality standards
	FPPREC6A Store and Distribute Processed Chemicals	Unit deleted – no equivalent in FPP10
	FPPRES3A Prepare Woodchip Line for production	Unit deleted and content incorporated in FPPRES210A Prepare and operate the woodchip production system
	FPPRES4A Prepare Logs for Chip Production	Unit deleted and content incorporated in FPPRES210A Prepare and operate the woodchip production system
	FPPRES6A Conduct Woodchip Quality Assessments	Unit deleted – no equivalent in FPP10
	FPPRES7A Co-ordinate System Shutdown	Unit deleted and content incorporated in FPPRES210A Prepare and operate the woodchip production system
	FPPWAS8A Manage Water System Shutdown	Unit deleted and content incorporated in FPPWAS210A Operate water systems

Overview

Overview

What is a Training Package?

A Training Package is an integrated set of nationally endorsed competency standards, assessment guidelines and Australian Qualifications Framework (AQF) qualifications for a specific industry, industry sector or enterprise.

Each Training Package:

- provides a consistent and reliable set of components for training, recognising and assessing peoples skills, and may also have optional support materials
- enables nationally recognised qualifications to be awarded through direct assessment of workplace competencies
- encourages the development and delivery of flexible training which suits individual and industry requirements
- encourages learning and assessment in a work-related environment which leads to verifiable workplace outcomes.

How do Training Packages fit within the National Skills Framework?

The National Skills Framework applies nationally, is endorsed by the Ministerial Council for Vocational and Technical Education, and comprises the Australian Quality Training Framework 2010 (AQTF 2010), and Training Packages endorsed by the National Quality Council (NQC).

How are Training Packages developed?

Training Packages are developed by Industry Skills Councils or enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement of Training Packages, developers must provide evidence of extensive research, consultation and support within the industry area or enterprise.

How do Training Packages encourage flexibility?

Training Packages describe the skills and knowledge needed to perform effectively in the workplace without prescribing how people should be trained.

Training Packages acknowledge that people can achieve vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it. For example, some experienced workers might be able to demonstrate competency against the units of competency, and even gain a qualification, without completing a formal training program.

With Training Packages, assessment and training may be conducted at the workplace, off-the-job, at a training organisation, during regular work, or through work experience, work placement, work simulation or any combination of these.

Who can deliver and assess using Training Packages?

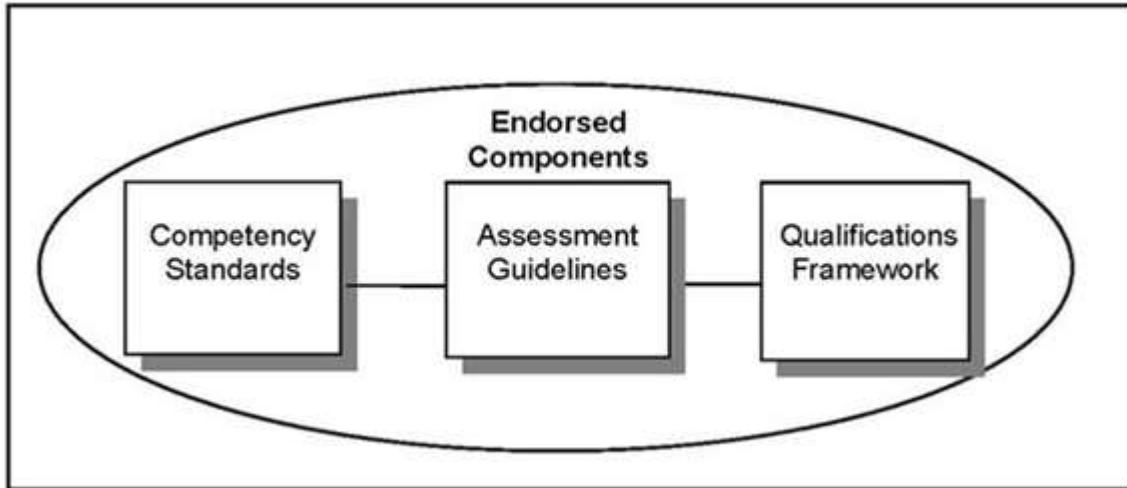
Training and assessment using Training Packages must be conducted by a Registered Training Organisation (RTO) that has the qualifications or specific units of competency on its scope of registration, or that works in partnership with another RTO, as specified in the AQTF 2010.

Training Package Components

Training Packages are made up of mandatory components endorsed by the NQC, and optional support materials.

Training Package Endorsed Components

The nationally endorsed components include the Competency Standards, Assessment Guidelines and Qualifications Framework. These form the basis of training and assessment in the Training Package and, as such, they must be used.



Competency Standards

Each unit of competency identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy; and occupational health and safety requirements. The units of competency must be adhered to in training and assessment to ensure consistency of outcomes.

Assessment Guidelines

The Assessment Guidelines provide an industry framework to ensure all assessments meet industry needs and nationally agreed standards as expressed in the Training Package and the AQTF 2010. The Assessment Guidelines must be followed to ensure the integrity of assessment leading to nationally recognised qualifications.

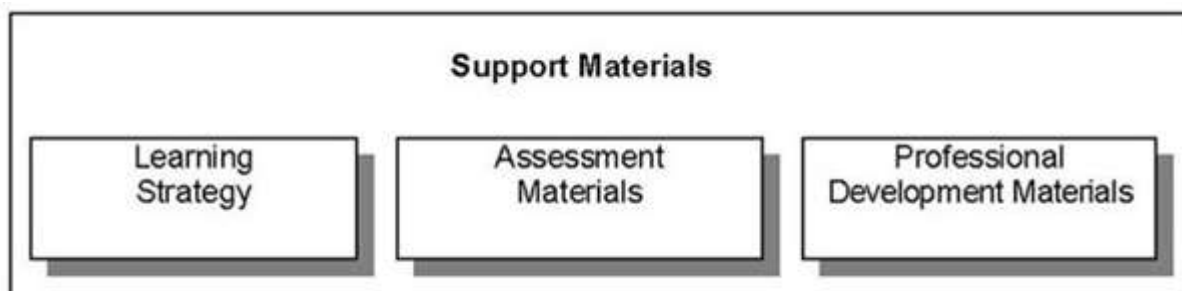
Qualifications Framework

Each Training Package provides details of those units of competency that must be achieved to award AQF qualifications. The rules around which units of competency can be combined to make up a valid AQF qualification in the Training Package are referred to as the 'packaging rules'. The packaging rules must be followed to ensure the integrity of nationally recognised qualifications issued.

Training Package Support Materials

The endorsed components of Training Packages are complemented and supported by optional support materials that provide for choice in the design of training and assessment to meet the needs of industry and learners.

Training Package support materials can relate to single or multiple units of competency, an industry sector, a qualification or the whole Training Package. They tend to fall into one or more of the categories illustrated below.



Training Package support materials are produced by a range of stakeholders such as RTOs, individual trainers and assessors, private and commercial developers and Government agencies.

Training Package, Qualification and Unit of Competency Codes

There are agreed conventions for the national codes used for Training Packages and their components. Always use the correct codes, exactly as they appear in the Training Package, **and with the code always before the title.**

Training Package Codes

Each Training Package has a unique five-character national code assigned when the Training Package is endorsed, for example XYZ08. The first three characters are letters identifying the Training Package industry coverage and the last two characters are numbers identifying the year of endorsement.

Qualification Codes

Within each Training Package, each qualification has a unique eight-character code, for example XYZ10108. Qualification codes are developed as follows:

- the first three letters identify the Training Package;
- the first number identifies the qualification level (noting that, in the qualification titles themselves, arabic numbers are **not** used);
- the next two numbers identify the position in the sequence of the qualification at that level; and
- the last two numbers identify the year in which the qualification was endorsed. (Where qualifications are added after the initial Training Package endorsement, the last two numbers may differ from other Training Package qualifications as they identify the year in which those particular qualifications were endorsed.)

Unit of Competency Codes

Within each Training Package, each unit of competency has a unique code. Unit of competency codes are assigned when the Training Package is endorsed, or when new units of competency are added to an existing endorsed Training Package. Unit codes are developed as follows:

- a typical code is made up of 12 characters, normally a mixture of uppercase letters and numbers, as in FPPSTM330A Shut down and bank steam boiler;
- the first three characters signify the Training Package FPP in the above example and up to eight characters, relating to an industry sector, function or skill area, follow;
- the last character is always a letter and identifies the unit of competency version. An 'A' at the end of the code indicates that this is the original unit of competency. 'B', or another incremented version identifier means that minor changes have been made. Typically this would mean that wording has changed in the range statement or evidence guide, providing clearer intent; and
- where changes are made that alter the outcome, a new code is assigned and the title is changed.
-

Training Package, Qualification and Unit of Competency Titles

There are agreed conventions for titling Training Packages and their components. Always use the correct titles, exactly as they appear in the Training Package, and with the code always placed before the title.

Training Package Titles

The title of each endorsed Training Package is unique and relates the Training Packages broad industry coverage.

Qualification Titles

The title of each endorsed Training Package qualification is unique. Qualification titles use the following sequence:

- first, the qualification is identified as either Certificate I, Certificate II, Certificate III, Certificate IV, Diploma, Advanced Diploma, Vocational Graduate Certificate, or Vocational Graduate Diploma;
- this is followed by the words 'in' for Certificates I to IV, and 'of' for Diploma, Advanced Diploma, Vocational Graduate Certificate and Vocational Graduate Diploma;
- then, the industry descriptor, for example Telecommunications; and
- then, if applicable, the occupational or functional stream in brackets, for example (Computer Systems).

For example:

FPP30110 Certificate III in Pulping Operations

Unit of Competency Titles

Each unit of competency title is unique. Unit of competency titles describe the competency outcome concisely, and are written in sentence case.

For example:

FPPPUL320A Prepare and start up pulping system operations

Introduction to FPP10 Version 1

Introduction to FPP10 Version 1

Industry profile

The pulp and paper sector manufactures pulp and a wide range of paper and paper products within the following main categories: printing and communications paper, newsprint, packaging and industrial paper and tissue products. These products are produced using pulp from both Australian paper recycling and wood sources, with some pulp imported to supplement domestic supply.

The sector is highly concentrated with employment being based in twenty major operating mills predominately located across the lower South Australian-Victorian border, central Victoria and Tasmania, as well as across New South Wales and South-East Queensland. It directly employs approximately 4000 people and up to 15 000 employees in downstream activities such as converting and other remanufacturing, many of whom work in rural and regional areas. Critical skills of workers in this sector are required to facilitate continuous operation of complex equipment and processes across multiple technologies and also include troubleshooting and rectification of systems and processes.

List of AQF Qualifications

List of AQF Qualifications

Qualification Code	Title
FPP20110	Certificate II in Pulping Operations
FPP20210	Certificate II in Papermaking Operations
FPP30110	Certificate III in Pulping Operations
FPP30210	Certificate III in Papermaking Operations
FPP40110	Certificate IV in Pulping Operations
FPP40210	Certificate IV in Papermaking Operations
FPP50110	Diploma of Pulp and Paper Process Management

Units of Competency FPP10

Units of Competency FPP10

Unit Code	Unit Title
FPPCPP210A	Monitor and control coated paper processes
FPPCPP320A	Prepare and start up coated paper processes
FPPCPP330A	Co-ordinate the shutdown of coated paper processes
FPPCPP440A	Troubleshoot and rectify coated paper processes
FPPCPR210A	Prepare chemical products
FPPCSK310A	Operate process control equipment
FPPDEO210A	Monitor and control dry end operations
FPPDEO320A	Prepare and start up dry end operations
FPPDEO330A	Co-ordinate and implement dry end shutdown
FPPDEO440A	Troubleshoot and rectify dry end systems
FPPENV210A	Identify and monitor environmental discharges/emissions
FPPENV320A	Monitor and control environmental hazards
FPPEPG210A	Monitor and control power generation system
FPPEPG320A	Manage a power generation system startup
FPPEPG330A	Co-ordinate power generation system shutdown
FPPEPG440A	Troubleshoot and rectify power generation system
FPPFCO210A	Monitor, control and shut down finishing and converting operations
FPPFCO320A	Prepare and start up finishing and converting operations
FPPFCO340A	Troubleshoot and rectify finishing and converting systems
FPPHWP250A	Store and dispatch waste paper
FPPHWP260A	Receive waste paper

Unit Code	Unit Title
FPPHWP270A	Unload waste paper
FPPMHV210A	Operate overhead crane
FPPNUM210A	Estimate and calculate basic data
FPPNUM320A	Measure and calculate routine workplace data
FPPNUM430A	Calculate and analyse production and financial performance
FPPOHS210A	Participate in OHS processes
FPPOHS310A	Contribute to OHS processes
FPPOHS320A	Maintain OHS processes
FPPOHS410A	Identify, assess and control OHS risk in own work
FPPOHS420A	Manage OHS processes
FPPPLN210A	Plan and undertake a routine task
FPPPLN420A	Plan a complex activity
FPPPRM210A	Undertake operator level preventative maintenance
FPPPRM220A	Perform lubrication
FPPPRS210A	Identify and rectify problems in the workplace
FPPPRS320A	Solve systemic problems in the workplace
FPPPRV210A	Operate ancillary equipment
FPPPRV320A	Co-ordinate and direct clothing changes
FPPPUL210A	Monitor and control pulping operations
FPPPUL250A	Store and distribute pulped product
FPPPUL320A	Prepare and start up pulping system operations
FPPPUL330A	Co-ordinate and implement pulping plant shutdowns
FPPPUL440A	Troubleshoot and rectify pulping processes
FPPQAS210A	Apply basic quality practices

Unit Code	Unit Title
FPPQAS420A	Co-ordinate in-process quality assurance
FPPQAS430A	Oversee quality assurance process
FPPREC210A	Monitor and control chemical recovery operations
FPPREC320A	Prepare and start up chemical recovery operations
FPPREC330A	Co-ordinate and implement chemical recovery shutdowns
FPPREC440A	Troubleshoot and rectify chemical recovery operations
FPPREL210A	Contribute to effective working relationships
FPPRES210A	Prepare and operate the woodchip production system
FPPRES250A	Distribute woodchips
FPPRES260A	Receive materials
FPPRES270A	Unload materials
FPPRES340A	Troubleshoot and rectify primary resource operations
FPPSPR210A	Monitor and control stock preparation systems
FPPSPR320A	Prepare and start up stock preparation system for production
FPPSPR330A	Co-ordinate and implement stock preparation system shutdown
FPPSPR440A	Troubleshoot and rectify stock preparation systems
FPPSTM210A	Monitor and control boiler operation
FPPSTM320A	Manage steam boiler startup
FPPSTM330A	Shut down and bank steam boiler
FPPSTM440A	Troubleshoot and rectify boiler plant systems
FPPSUS210A	Apply sustainable work practices/policies
FPPSUS510A	Develop workplace policy and procedures for sustainability
FPPWAR250A	Store product
FPPWAR255A	Prepare and dispatch product

Unit Code	Unit Title
FPPWAR280A	Warehouse product packaging
FPPWAS210A	Operate water systems
FPPWAS340A	Troubleshoot and rectify water systems
FPPWEO210A	Monitor and control wet end operations
FPPWEO320A	Prepare and start up wet end operations
FPPWEO330A	Co-ordinate and implement wet end shutdown
FPPWEO440A	Troubleshoot and rectify wet end systems
FPPWPO210A	Monitor and control waste paper operations
FPPWPO320A	Prepare and start up waste paper operations
FPPWPO330A	Co-ordinate and implement waste paper shutdown
FPPWPO440A	Troubleshoot and rectify waste paper operations

Imported Units of Competency FPP10

Imported Units of Competency FPP10

Code	Title
BSBADM405B	Organise meetings
BSBADM502B	Manage meetings
BSBAUD501B	Initiate a quality audit
BSBCMM101A	Apply basic communication skills
BSBCMM201A	Communicate in the workplace
BSBCMM401A	Make a presentation
BSBFIM501A	Manage budgets and financial plans
BSBFLM305C	Support operational plan
BSBFLM309C	Support continuous improvement systems and processes
BSBFLM311C	Support a workplace learning environment
BSBFLM312C	Contribute to team effectiveness
BSBLED501A	Develop a workplace learning environment
BSBMGT502B	Manage people performance
BSBMGT515A	Manage operational plan
BSBMGT608C	Manage innovation and continuous improvement
BSBOHS401B	Contribute to the implementation of a systematic approach to managing OHS
BSBOHS402B	Contribute to the implementation of the OHS consultation process
BSBOHS403B	Identify hazards and assess OHS risks
BSBOHS404B	Contribute to the implementation of strategies to control OHS risk
BSBOHS405B	Contribute to the implementation of emergency procedures
BSBOHS406C	Use equipment to conduct workplace monitoring

Code	Title
BSBOHS407A	Monitor a safe workplace
BSBOHS408A	Assist with compliance with OHS and other laws
BSBPMG510A	Manage projects
BSBREL401A	Establish networks
BSBRES401A	Analyse and present research information
BSBRSK401A	Identify risk and apply risk management processes
BSBWOR401A	Establish effective workplace relationships
BSBWOR402A	Promote team effectiveness
BSBWOR501B	Manage personal work priorities and professional development
BSBWOR502B	Ensure team effectiveness
BSBWRK402A	Empower workers
BSBWRK403A	Communicate with workers
BSBWRK404A	Promote equality of opportunity and fair treatment for all workers
BSBWRK406A	Participate in the bargaining process
BSBWRK407A	Provide advice to union members
BSBWRK408A	Undertake negotiations
BSBWRK409A	Prepare for and participate in dispute resolution
BSBWRK506A	Coordinate research and analysis
CPPSEC2011A	Control access to and exit from premises
CPPSEC2015A	Patrol premises
CPPSEC3007A	Maintain security of environment
HLTFA301B	Apply first aid
MEM09002B	Interpret technical drawing
MEM11016B	Order materials

Code	Title
MEM12023A	Perform engineering measurements
MEM12024A	Perform computations
MEM14005A	Plan a complete activity
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
MEM18003C	Use tools for precision work
MEM18006C	Repair and fit engineering components
MEM18007B	Maintain and repair mechanical drives and mechanical transmission assemblies
MEM18009B	Perform levelling and alignment of machines and engineering components
MEM18010C	Perform equipment condition monitoring and recording
MEM18011C	Shut down and isolate machines/equipment
MEM18055B	Dismantle, replace and assemble engineering components
MEM30020A	Develop and manage a plan for a simple manufacturing related project
MSACMC411A	Lead a competitive manufacturing team
MSACMS400A	Implement a competitive manufacturing system
MSACMS401A	Ensure process improvements are sustained
MSACMT220A	Apply quick changeover procedures
MSACMT230A	Apply cost factors to work practices
MSACMT240A	Apply 5S procedures in a manufacturing environment
MSACMT250A	Monitor process capability
MSACMT251A	Apply quality standards
MSACMT270A	Use sustainable energy practices

Code	Title
MSACMT271A	Use sustainable environmental practices
MSACMT281A	Contribute to the application of a proactive maintenance strategy
MSACMT432A	Analyse manual handling processes
MSACMT440A	Lead 5S in a manufacturing environment
MSACMT451A	Mistake proof a production process
MSACMT452A	Apply statistics to processes in manufacturing
MSACMT671A	Develop and manage sustainable environmental practices
MSAENV472B	Implement and monitor environmentally sustainable work practices
MSAPMOHS110A	Follow emergency response procedures
MSAPMOHS220A	Provide initial first aid response
MSAPMOPS212A	Use enterprise computers or data systems
MSAPMSUP101A	Clean workplace or equipment
MSAPMSUP382A	Provide coaching/mentoring in the workplace
MSAPMSUP400A	Develop and monitor quality systems
MSL904001A	Perform standard calibrations
MSL973001A	Perform basic tests
PMAOHS211B	Prepare equipment for emergency response
PSPPM402B	Manage simple projects
TAAASS501B	Lead and coordinate assessment systems and services
TAATAS501B	Undertake organisational training needs analysis
TAADES502B	Design and develop learning resources
TAEASS301A	Contribute to assessment
TAEASS401A	Plan assessment activities and processes

Code	Title
TAEASS402A	Assess competence
TAEASS403A	Participate in assessment validation
TAEASS502A	Design and develop assessment tools
TAEDEL301A	Provide work skill instruction
TAEDEL401A	Plan, organise and deliver group-based learning
TAEDEL402A	Plan, organise and facilitate learning in the workplace
TAEDEL404A	Mentor in the workplace
TAEDES401A	Design and develop learning programs
TAEDES402A	Use training packages and accredited courses to meet client needs
TAETAS501A	Undertake organisational training needs analysis
TLIA1207C	Pick and process orders
TLIA1607C	Use inventory systems to organise stock control
TLIA2207C	Participate in stocktakes
TLID1007C	Operate a forklift
TLID107C	Shift materials safely using manual handling methods
TLID1107C	Conduct specialised forklift operations
TLID1307C	Move materials mechanically using automated equipment
TLID207C	Shift a load using manually-operated equipment
TLID2407C	Use specialised liquid bulk transfer equipment (gravity/pressurised)
TLID307E	Handle dangerous goods/hazardous substances
TLID3107C	Rig load
TLID3507C	Operate a boom type elevating work platform
TLID407C	Load and unload goods/cargo

Code	Title
TLID707C	Prepare cargo for transfer with slings
TLIE607D	Collect, analyse and present workplace data and information
UEPOPS341A	Shut down a steam turbine
UEPOPS411A	Run up a steam turbine
FPICOT6205A	Prepare an enterprise carbon management report
FPICOT5208A	Build and maintain community relationships
FPICOT5207A	Implement sustainability in the workplace
FPICOT6201A	Manage community engagement
FPICOR6201A	Manage sustainability in the workplace

Unit Code	Unit Title	ISC
	Business Services Training Package	BSB07
	Property Services Training Package	CPP07
	Health Training Package	HLT07
	Metal and Engineering Training Package	MEM05
	Manufacturing Qualifications	MSA07
	Laboratory Operations Training Package	MSL09
	Laboratory Operations Training Package	PMA08
	Public Sector Training Package	PSP04
	Training and Education Training Package	TAE10
	Transport & Logistics Training Package	TLI07
	Electricity Supply Industry - General Sector Training Package	UEP06
	Forest & Forest Products Training Package	FPI05

Qualifications Framework

Qualifications Framework

The Australian Qualifications Framework

What is the Australian Qualifications Framework?

A brief overview of the Australian Qualifications Framework (AQF) follows. For a full explanation of the AQF, see the AQF Implementation Handbook.

http://www.aqf.edu.au/Portals/0/Documents/Handbook/AQF_Handbook_07.pdf

The AQF provides a comprehensive, nationally consistent framework for all qualifications in post-compulsory education and training in Australia. In the vocational education and training (VET) sector it assists national consistency for all trainees, learners, employers and providers by enabling national recognition of qualifications and Statements of Attainment.

Training Package qualifications in the VET sector must comply with the titles and guidelines of the AQF. Endorsed Training Packages provide a unique title for each AQF qualification which must always be reproduced accurately.

Qualifications

Training Packages can incorporate the following eight AQF qualifications.

- Certificate I in ...
- Certificate II in ...
- Certificate III in ...
- Certificate IV in ...
- Diploma of ...
- Advanced Diploma of ...
- Vocational Graduate Certificate of ...
- Vocational Graduate Diploma of ...

On completion of the requirements defined in the Training Package, a Registered Training Organisation (RTO) may issue a nationally recognised AQF qualification. Issuance of AQF qualifications must comply with the advice provided in the *AQF Implementation Handbook* and the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Statement of Attainment

A Statement of Attainment is issued by a Registered Training Organisation when an individual has completed one or more units of competency from nationally recognised qualification(s)/courses(s). Issuance of Statements of Attainment must comply with the advice provided in the current *AQF Implementation Handbook* and the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Certificate I

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and skills would prepare a person to perform a defined range of activities most of which may be routine and predictable.

Applications may include a variety of employment related skills including preparatory access and participation skills, broad-based induction skills and/or specific workplace skills. They may also include participation in a team or work group.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate knowledge by recall in a narrow range of areas;
- demonstrate basic practical skills, such as the use of relevant tools;
- perform a sequence of routine tasks given clear direction
- receive and pass on messages/information.

Certificate II*Characteristics of Learning Outcomes*

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of operations to be applied.

Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes.

Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources;
- take limited responsibility for own outputs in work and learning.

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Certificate III*Characteristics of Learning Outcomes*

Breadth, depth and complexity of knowledge and competencies would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specified problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available.

Performance of a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in the selection of equipment, services or contingency measures and within known time constraints.

Applications may involve some responsibility for others. Participation in teams

including group or team co-ordination may be involved.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate some relevant theoretical knowledge
- apply a range of well-developed skills
- apply known solutions to a variety of predictable problems
- perform processes that require a range of well-developed skills where some discretion and judgement is required
- interpret available information, using discretion and judgement
- take responsibility for own outputs in work and learning
- take limited responsibility for the output of others.

Certificate IV

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills. Applications involve responsibility for, and limited organisation of, others.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
- apply solutions to a defined range of unpredictable problems
- identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others.

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Diploma

Characteristics of Learning Outcomes

Breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or

management requirements, evaluation and co-ordination.

The self directed application of knowledge and skills, with substantial depth in some areas where judgment is required in planning and selecting appropriate equipment, services and techniques for self and others.

Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team co-ordination may be involved.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

Distinguishing Features of Learning Outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas
- analyse and plan approaches to technical problems or management requirements
- transfer and apply theoretical concepts and/or technical or creative skills to a range of situations
- evaluate information, using it to forecast for planning or research purposes
- take responsibility for own outputs in relation to broad quantity and quality parameters
- take some responsibility for the achievement of group outcomes.

Advanced Diploma

Characteristics of Learning Outcomes

Breadth, depth and complexity involving analysis, design, planning, execution and evaluation across a range of technical and/or management functions including development of new criteria or applications or knowledge or procedures.

The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.

Applications involve significant judgement in planning, design, technical or leadership/guidance functions related to products, services, operations or procedures.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

Distinguishing Features of Learning Outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of specialised knowledge with depth in some areas
- analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- generate ideas through the analysis of information and concepts at an abstract level
- demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills
- demonstrate accountability for personal outputs within broad parameters
- demonstrate accountability for personal and group outcomes within broad parameters.

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Vocational Graduate Certificate

Characteristics of competencies or learning outcomes

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Substantial breadth and complexity involving the initiation, analysis, design, planning, execution and evaluation of technical and management functions in highly varied and highly specialised contexts.
- Applications involve making significant, high-level, independent judgements in major broad or planning, design, operational, technical and management functions in highly varied and specialised contexts. They may include responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Distinguishing features of learning outcomes

- Demonstrate the self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Initiate, analyse, design, plan, execute and evaluate major broad or technical and management functions in highly varied and highly specialised contexts.
- Generate and evaluate ideas through the analysis of information and concepts at an abstract level.
- Demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills in complex contexts.
- Demonstrate responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.

Vocational Graduate Diploma

Characteristics of competencies or learning outcomes

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.

- Substantial breadth, depth and complexity involving the initiation, analysis, design, planning, execution and evaluation of major functions, both broad and highly specialised, in highly varied and highly specialised contexts.
- Further specialisation within a systematic and coherent body of knowledge.
- Applications involve making high-level, fully independent, complex judgements in broad planning, design, operational, technical and management functions in highly varied and highly specialised contexts. They may include full responsibility and accountability for all aspects of work and functions of others, including planning, budgeting and strategy development.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Distinguishing features of learning outcomes

- Demonstrate the self-directed development and achievement of broad and highly specialised areas of knowledge and skills, building on prior knowledge and skills.
- Initiate, analyse, design, plan, execute and evaluate major functions, both broad and within highly varied and highly specialised contexts.
- Generate and evaluate complex ideas through the analysis of information and concepts at an abstract level.
- Demonstrate an expert command of wide-ranging, highly specialised, technical, creative or conceptual skills in complex and highly specialised or varied contexts.
- Demonstrate full responsibility and accountability for personal outputs.
- Demonstrate full responsibility and accountability for all aspects of the work or functions of others, including planning, budgeting and strategy.

Qualifications and Packaging Rules

List of AQF Qualifications

Qualification Code	Title
FPP20110	Certificate II in Pulping Operations
FPP20210	Certificate II in Papermaking Operations
FPP30110	Certificate III in Pulping Operations
FPP30210	Certificate III in Papermaking Operations
FPP40110	Certificate IV in Pulping Operations
FPP40210	Certificate IV in Papermaking Operations
FPP50110	Diploma of Pulp and Paper Process Management

Background

The qualifications structure of FPP10:

- offers a qualifications framework which is applicable and flexible for enterprises and individuals
- accurately reflects the actual skills required by the workforce, both now and into the future
- includes a range of competencies that are flexible enough to be customised to the specific needs of the enterprise
- provides learning and articulated pathways for the attainment of competencies and, ultimately, full qualifications
- provides effective qualifications at the higher AQF levels (Certificate IV and Diploma) that suit industry needs for a technical qualification and a management focused qualification, or a balance of both
- accommodates the evolving and emerging needs of a diverse and changing industry
- has embedded sustainability skills within the competencies

Structure of the Qualifications

The qualification packaging rules provide maximum flexibility through the identification of mandatory units to meet occupational requirements, provision of a choice of electives to ensure enterprise needs are met, and the incorporation of relevant units from other endorsed Training Packages to facilitate portability of qualifications.

Industry qualifications are presented as Certificates II, III or IV in Pulp and Paper Operations or Certificates II, III or IV in Papermaking Operations. The Diploma of Pulp and Paper Process Management completes the progression of career path opportunities for people within the industry.

Services specialisations are available via both pulping and papermaking operations qualifications.

The two 'streams' of qualifications are necessary in the pulp and paper manufacturing industry. Some mills are pulp mills, some are paper mills, and some are both. The delineation between the two groupings of qualifications enables companies to clearly differentiate between the groupings of competencies based on the mills' operations.

Support electives reflect industry specific elective units.

Industry specific elective units are the 'lead' units that shape the qualification.

There are a few unit 'groups' that run across both types of operations – pulp *and* paper, so the corresponding units are included in both qualification 'streams' (Chemical recovery, Water services, Steam generation and Power generation)

Skill Sets in this Training Package

Nationally recognised Skill Sets are yet to be identified in this industry.

Qualification Pathways

A pathways charts is provided to show the types of pathways into and from qualifications that are possible with this Training Package

Qualification Pathways

The following pathways charts are provided to show the types of pathways into and from qualifications that are possible with this Training Package. For more information about qualifications and pathways contact ForestWorks ISC www.forestworks.com.au

Diploma of Pulp and Paper Process Management
FPP50110 12 units

- Production Services Supervisor
- Production Manager
- Senior Operator (across sectors)
- Crew/Team Leader
- Superintendent/Technician

Certificate IV in Papermaking Operations
FPP40210

- Dry End Senior Operator
- Wet End Senior Operator
- Finishing and Converting Senior Operator
- Coating Senior Operator

- Co-located specialisations
- Electricity Generation/Turbine Senior Operator
 - Steam Generation/Boilerhouse Senior Operator
 - Chemical Recovery Senior Operator



Certificate IV in Pulping Operations
FPP40110

- Pulping Senior Operator
- Waste Paper Senior Operator
- Stock preparation Senior Operator

- Co-located specialisations
- Electricity Generation/Turbine Senior Operator
 - Steam Generation/Boilerhouse Senior Operator
 - Chemical Recovery Senior Operator

Certificate III in Papermaking Operations
FPP30210

- Dry End Operator
- Wet End Operator
- Finishing and Converting Operator
- Coating Systems Operator

- Co-located specialisations
- Electricity Generation/Turbine Operator
 - Steam Generation/Boilerhouse Operator
 - Water Services Operator
 - Chemical Recovery Operator



Certificate III in Pulping Operations
FPP30110

- Pulping Operator
- Waste Paper Operator
- Stock Preparation Operator

- Co-located specialisations
- Electricity Generation/Turbine Operator
 - Steam Generation/Boilerhouse Operator
 - Water Services Operator
 - Chemical Recovery Operator

Certificate II in Papermaking Operations
FPP20210

- Dry End Assistant
- Wet End Assistant
- Finishing and Converting Assistant
- Coating Systems Assistant
- Warehouse Assistant

- Co-located specialisations
- Electricity Generation/Turbine Operations Assistant
 - Steam Generation/Boilerhouse Assistant
 - Water Services Assistant
 - Chemical Recovery Assistant



Certificate II in Pulping Operations
FPP20110

- Primary Resources Assistant
- Pulping Operations Assistant
- Waste Paper Assistant
- Stock Preparation Assistant

- Co-located specialisations
- Electricity Generation/Turbine Operations Assistant
 - Steam Generation/Boilerhouse Assistant
 - Water Services Assistant
 - Chemical Recovery Assistant

Assessment Guidelines

Assessment Guidelines

Introduction

These Assessment Guidelines provide the endorsed framework for assessment of units of competency in this Training Package. They are designed to ensure that assessment is consistent with the *Australian Quality Training Framework (AQTF) Essential Standards for Initial and Continuing Registration*. Assessments against the units of competency in this Training Package must be carried out in accordance with these Assessment Guidelines.

Assessment System Overview

This section provides an overview of the requirements for assessment when using this Training Package, including a summary of the AQTF requirements; licensing and registration requirements; and assessment pathways.

Quality assessment underpins the credibility of the vocational education and training sector. The Assessment Guidelines of a Training Package are an important tool in supporting quality assessment.

Assessment within the National Skills Framework is the process of collecting evidence and making judgements about whether competency has been achieved to confirm whether an individual can perform to the standards expected in the workplace, as expressed in the relevant endorsed unit of competency.

Assessment must be carried out in accordance with the:

- benchmarks for assessment
- specific industry requirements
- principles of assessment
- rules of evidence
- assessment requirements set out in the AQTF

Benchmarks for Assessment

The endorsed units of competency in this Training Package are the benchmarks for assessment. As such, they provide the basis for nationally recognised Australian Qualifications Framework (AQF) qualifications and Statements of Attainment issued by Registered Training Organisations (RTOs).

Industry Requirements

The Pulp and Paper Industry is traditionally a high speed and technologically complex industry. It is typically characterised by continuous processing integrated operations. The speed, complexity of technology and aggregation of different systems are well served by workplace training and assessment. It is common practice for workplace training and assessment to be conducted in the Pulp and Paper Industry consistent with benchmarks contained in the endorsed units of competency and auspiced through registered training organisations.

Industry conditions and expectations necessitate the following assessment requirements:

- Access to relevant industry-specific workplace equipment in an operational pulp and/or paper mill
- Genuine simulations that reflect the real work, including occupational health and safety, quality and productivity

- A minimum of three pieces of evidence of competency for functions involving safety
- Units of competency selected are appropriate to the work being performed and assessed at the right level for the job
- Sensory information relevant to the plant and equipment used in the job and can reasonably be expected at the level of the job
- Units that are packaged at different AQF levels are applied in the context of the job requirements
- The assessment of employability skills appropriate to the work being performed and assessed at the right level for the job.

Note:

The imported unit MEM18011C *Shut down and isolate machines/equipment* and generic imported OHS units have been contextualised for the Pulp and Paper Manufacturing Industry. Please see the individual units for contextualisation and expanded range statements. The following assessment strategies form part of industry professional practice associated with this training package:

- Assessors do not assess a learner they have trained in the competencies being assessed
- Primary evidence of applied skills and knowledge, OHS, quality and productivity requirements is collected in the context of the job
- Assessments are evidence based, with five standard types of evidence used:
 - Observation on the job
 - Demonstration, in instances that are unlikely to happen at the exact time of the assessment or may be dangerous to people or equipment. This may involve simulations, a mock-up or 'show me...' scenarios
 - Written evidence including log sheets, documents prepared by the learner, test results or quality reports etc.
 - Questions that are open questions that start with 'what...', 'why...', 'how...', 'when...', 'who...' (where appropriate) and 'what would you do if...'
 - Third party reports from relevant personnel.
- Workplace assessors may undertake different components of assessments at different times including non-rostered time and rostered time where:
 - Evidence collection in rostered work time may include on-the-job observation, written evidence (e.g. log books, quality reports etc.), written questions and third party evidence collection
 - Evidence collection in non-rostered time may include verbal questions, demonstration/simulation, and third party evidence collection where this cannot be accessed in rostered time.
- Holistic assessments are conducted:
 - Reflecting whole component(s) of the job
 - Providing evidence they can 'put the whole job together'

- Enabling, as a general rule, the co-assessment of competencies contained in core and support elective units, with the assessment of industry specific competencies, with the exception of FPPOHS units. The units FPPOHS210A, FPPOHS310A and FPPOHS320A contained in this package must be holistically assessed with the relevant industry specific (functional) units. This ensures that learners are competent in performing all aspects of their work safely. The remaining FPPOHS410 and FPPOHS420 units must be assessed in the context of pulp and/or paper manufacturing industry operations.

The following example of a typical workplace assessment is provided as guidance regarding holistic assessments:

- Assessors typically assess learners in the set of functions and associated skills and knowledge that make up whole component(s) of a job, consistent with benchmarks contained in endorsed units of competency aligned to the job
- Evidence is collected that demonstrates levels of performance expected in the workplace over time and under different conditions. This evidence may be collected through formative assessments or a summative assessment, ensuring that the assessment is structured to enable:
 - Learners to demonstrate an applied understanding of the inter-relationships between different components of the job

This is often assessed through:

- Written (e.g. log books) and/or third party evidence of problem solving coupled with ‘why...’ questions that demonstrate an applied understanding of the whole job, and/or
- A series of comprehensive ‘what would you do if...’ questions coupled with ‘why...’ questions that probe the inter-relationship of components of the job.
- Competencies in core and support elective units to be embedded in the assessment of industry specialisations, enhancing the relevance and inter-dependence of competencies required to perform a job

This is often assessed through:

- Verbal and written ‘what...’ and ‘why...’ and ‘what would you do if...’ questions that probe a learners’ OHS competency, in the first instance
- Language, literacy and numeracy (LLN) and other assessment strategies, as needed, addressed separately in the first instance, and then co-assessed with industry specific competencies
- Collecting sufficient evidence of applied OHS, communication, problem solving, numeracy, quality and sustainability competency when assessing industry specialisations i.e., the industry specialisations provide the context for OHS, communication, problem solving, numeracy, quality and sustainability competencies being demonstrated.

Any requirements contained in core and/or support elective units that are not demonstrated in the course of industry specific assessment should be collected separately, and relate to the job.

Workplace trainer competencies:

Workplace trainers that provide training as a requirement of a broader operations job role (i.e. where their job role is not specifically or exclusively a trainer), *should* hold the unit of competency TAEDL301A *Provide work skill instruction*, or equivalent.

In addition, workplace trainers and assessors must demonstrate current knowledge and experience of the industry, industry practices, and the trainee's job role that is the subject of the training and/or assessment.

Principles of Assessment

All assessments carried out by RTOs are required to demonstrate compliance with the principles of assessment:

- validity
- reliability
- flexibility
- fairness
- sufficiency

These principles must be addressed in the:

- design, establishment and management of the assessment system for this Training Package
- development of assessment tools, and
- the conduct of assessment.

Validity

Assessment is valid when the process is sound and assesses what it claims to assess. Validity requires that:

- (a) assessment against the units of competency must cover the broad range of skills and knowledge that are essential to competent performance
- (b) assessment of knowledge and skills must be integrated with their practical application
- (c) judgement of competence must be based on sufficient evidence (that is, evidence gathered on a number of occasions and in a range of contexts using different assessment methods). The specific evidence requirements of each unit of competency provide advice on sufficiency

Reliability

Reliability refers to the degree to which evidence presented for assessment is consistently interpreted and results in consistent assessment outcomes. Reliability requires the assessor to have the required competencies in assessment and relevant vocational competencies (or to assess in conjunction with someone who has the vocational competencies). It can only be achieved when assessors share a common interpretation of the assessment requirements of the unit(s) being assessed.

Flexibility

To be flexible, assessment should reflect the candidate's needs; provide for recognition of competencies no matter how, where or when they have been acquired; draw on a range of methods appropriate to the context, competency and the candidate; and support continuous competency development.

Fairness

Fairness in assessment requires consideration of the individual candidate's needs and characteristics, and any reasonable adjustments that need to be applied to take account of them. It requires clear communication between the assessor and the candidate to ensure that the candidate is fully informed about, understands and is able to participate in, the assessment process, and agrees that the process is appropriate. It also includes an opportunity for the person being assessed to challenge the result of the assessment and to be reassessed if necessary.

Sufficiency

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough *appropriate* evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency. Sufficiency is also one of the rules of evidence.

Rules of Evidence

The rules of evidence guide the collection of evidence that address the principles of validity and reliability, guiding the collection of evidence to ensure that it is valid, sufficient, current and authentic.

Valid

Valid evidence must relate directly to the requirements of the unit of competency. In ensuring evidence is valid, assessors must ensure that the evidence collected supports demonstration of the outcomes and performance requirements of the unit of competency together with the knowledge and skills necessary for competent performance. Valid evidence must encapsulate the breadth and depth of the unit of competency, which will necessitate using a number of different assessment methods.

Sufficient

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough appropriate evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency.

Current

In assessment, currency relates to the age of the evidence presented by a candidate to demonstrate that they are still competent. Competency requires demonstration of current performance, so the evidence collected must be from either the present or the very recent past.

Authentic

To accept evidence as authentic, an assessor must be assured that the evidence presented for assessment is the candidate's own work.

Assessment Requirements of the Australian Quality Training Framework

Assessment leading to nationally recognised AQF qualifications and Statements of Attainment in the vocational education and training sector must meet the requirements of the AQTF as expressed in the AQTF 2010 *Essential Standards for Registration*.

The AQTF 2010 *Essential Standards for Initial and Continuing Registration* can be downloaded from <www.training.com.au>.

The following points summarise the assessment requirements.

Registration of Training Organisations

Assessment must be conducted by, or on behalf of, an RTO formally registered by a State or Territory Registering Body in accordance with the AQTF. The RTO must have the specific units of competency and/or AQF qualifications on its scope of registration.

Quality Training and Assessment

Each RTO must provide quality training and assessment across all its operations. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*, Standard 1.

Assessor Competency Requirements

Each person involved in training and assessment must be competent for the functions they perform. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*, Standard 1 for assessor (and trainer) competency requirements. See also the AQTF 2010 *Users' Guide to the Essential Standards for Registration* – Appendix 2.

Assessment Requirements

The RTOs assessments, including RPL, must meet the requirements of the relevant endorsed Training Package. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Assessment Strategies

Each RTO must have strategies for training and assessment that meet the requirements of the relevant Training Package or accredited course and are developed in consultation with industry stakeholders. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

National Recognition

Each RTO must recognise the AQF qualifications and Statements of Attainment issued by any other RTO. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Access and Equity and Client Outcomes

Each RTO must adhere to the principles of access and equity and maximise outcomes for its clients. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Monitoring Assessments

Training and/or assessment provided on behalf of the RTO must be monitored to ensure that it is in accordance with all aspects of the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Recording Assessment Outcomes

Each RTO must manage records to ensure their accuracy and integrity. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Issuing AQF qualifications and Statement of Attainment

Each RTO must issue AQF qualifications and Statements of Attainment that meet the requirements of the current *AQF Implementation Handbook* and the endorsed Training Packages within the scope of its registration. An AQF qualification is issued once the full requirements for a qualification, as specified in the nationally endorsed Training Package are met. A Statement of Attainment is issued when an individual has completed one or more units of competency from nationally recognised qualification(s)/course(s). See the AQTF and the edition of the *AQF Implementation Handbook*—available on the AQF Council website <www.aqf.edu.au>

Licensing/Registration Requirements

This section provides information on licensing/registration requirements for this Training Package, with the following important disclaimer.

The developers of this Training Package consider that no licensing or registration requirements apply to RTOs, assessors or candidates with respect to this Training Package. Contact the relevant State or Territory Department(s) to check if there are any licensing or registration requirements with which you must comply. For further information on this topic contact www.forestworks@forestworks.com.au

Licensing/Registration Requirements – Industry Specific Advice

Licensing/registration requirements for particular job functions described in units of competency vary significantly. There are variations between States and Territories, and also between individual mills depending on the equipment and processes being used.

Organisations delivering training must determine the applicable licensing requirements associated with the equipment being used, in the relevant states and territories. To assist this, some units note that specific licensing/registration requirements may apply.

Furthermore, the relevant units stipulate that any applicable licensing/registration requirements must be met separately and prior to the achievement of the respective unit from this training package. Therefore, both assessors and candidates must hold the relevant licensing/registration requirements prior to commencing training or assessing in the respective units from this training package.

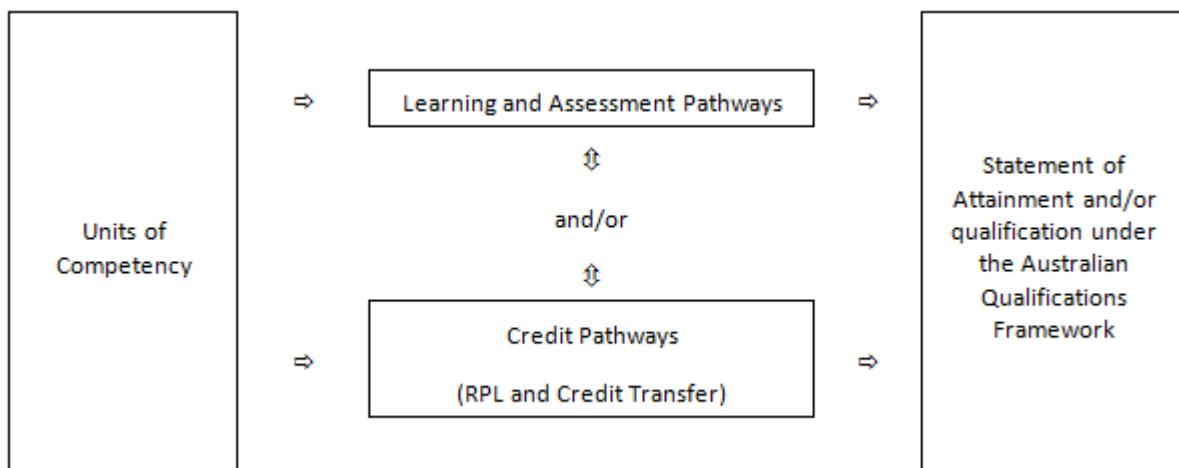
As such, the units of competency contained in this training package do not cover licensing/registration requirements.

Pathways

The competencies in this Training Package may be attained in a number of ways including through:

- formal or informal education and training
- experiences in the workplace
- general life experience, and/or
- any combination of the above.

Assessment under this Training Package leading to an AQF qualification or Statement of Attainment may follow a learning and assessment pathway, or a recognition pathway, or a combination of the two as illustrated in the following diagram.



Each of these assessment pathways leads to full recognition of competencies held – the critical issue is that the candidate is competent, not how the competency was acquired. Assessment, by any pathway, must comply with the assessment requirements set out in the Assessment Guidelines of the Training Package, the AQTF and, where relevant, the Australian Qualifications Framework.

Learning and Assessment Pathways

Usually, learning and assessment are integrated, with evidence being collected and feedback provided to the candidate at anytime throughout the learning and assessment process. Learning and assessment pathways may include structured programs in a variety of contexts using a range of strategies to meet different learner needs. Structured learning and assessment programs could be: group-based, work-based, project-based, self-paced, action learning-based; conducted by distance or e-learning; and/or involve practice and experience in the workplace.

Learning and assessment pathways to suit Australian Apprenticeships have a mix of formal structured training and structured workplace experience with formative assessment activities through which candidates can acquire and demonstrate skills and knowledge from the relevant units of competency.

Credit Pathways

Credit is the value assigned for the recognition of equivalence in content between different types of learning and/or qualifications which reduces the volume of learning required to achieve a qualification.

Credit arrangements must be offered by all RTOs that offer Training Package qualifications. Each RTO must have a systematic institutional approach with clear, accessible and transparent policies and procedures.

Competencies already held by individuals can be formally assessed against the units of competency in this Training Package, and should be recognised regardless of how, when or where they were acquired, provided that the learning is relevant to the unit of competency outcomes.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is an assessment process which determines the credit outcomes of an individual application for credit.

The availability of Recognition of Prior Learning (RPL) provides all potential learners with access to credit opportunities.

The recognition of prior learning pathway is appropriate for candidates who have previously attained skills and knowledge and who, when enrolling in qualifications, seek to shorten the duration of their training and either continue or commence working. This may include the following groups of people:

- existing workers;
- individuals with overseas qualifications;
- recent migrants with established work histories;
- people returning to the workplace; and
- people with disabilities or injuries requiring a change in career.

As with all assessment, RPL assessment should be undertaken by academic or teaching staff with expertise in the subject, content of skills area, as well as knowledge of and expertise in RPL assessment policies and procedures.

Assessment methods used for RPL should provide a range of ways for individuals to demonstrate that they have met the required outcomes and can be granted credit. These might include:

- questioning (oral or written)
- consideration of a portfolio and review of contents
- consideration of third party reports and/or other documentation such as documentation such as articles, reports, project material, papers, testimonials or other products prepared by the RPL applicant that relate to the learning outcomes of the relevant qualification component
- mapping of learning outcomes from prior formal or non-formal learning to the relevant qualification components
- observation of performance, and
- participation in structured assessment activities the individual would normally be required to undertake if they were enrolled in the qualification component/s.

In a Recognition of Prior Learning (RPL) pathway, the candidate provides current, quality evidence of their competency against the relevant unit of competency. This process may be directed by the candidate and verified by the assessor. Where the outcomes of this process indicate that the candidate is competent, structured training is not required. The RPL requirements of the AQTF must be met.

As with all assessment, the assessor must be confident that the evidence indicates that the candidate is currently competent against the endorsed unit of competency. This evidence may take a variety of forms and might include certification, references from past employers, testimonials from clients, work samples and/or observation of the candidate. The onus is on candidates to provide sufficient evidence to satisfy assessors that they currently hold the relevant competencies. In judging evidence, the assessor must ensure that the evidence of prior learning is:

- authentic (the candidate's own work);
- valid (directly related to the current version of the relevant endorsed unit of competency);
- reliable (shows that the candidate consistently meets the endorsed unit of competency);
- current (reflects the candidate's current capacity to perform the aspect of the work covered by the endorsed unit of competency); and
- sufficient (covers the full range of elements in the relevant unit of competency and addresses the four dimensions of competency, namely task skills, task management skills, contingency management skills, and job/role environment skills).

Credit Transfer

Credit transfer is a process which provides learners with agreed and consistent credit outcomes based on equivalences in content between matched qualifications.

This process involves education institutions:

- mapping, comparing and evaluating the extent to which the defined *learning outcomes and assessment requirements* of the individual *components of one qualification* are equivalent to the learning outcomes and assessment requirements of the individual components of another qualification
- making an educational judgment of the credit outcomes to be assigned between the matched components of the two qualifications
- setting out the agreed credit outcomes in a documented arrangement or agreement, and
- publicising the arrangement/agreement and credit available.

Combination of Pathways

Credit may be awarded on the basis of a combination of credit transfer plus an individual RPL assessment for additional learning. Once credit has been awarded on the basis of RPL, subsequent credit transfer based on these learning outcomes should not include revisiting the RPL assessment but should be based on credit transfer or articulation or other arrangements between providers.

Where candidates for assessment have gained competencies through work and life experience and gaps in their competence are identified, or where they require training in new areas, a combination of pathways may be appropriate.

In such situations, the candidate may undertake an initial assessment to determine their current competency. Once current competency is identified, a structured learning and assessment program ensures that the candidate acquires the required additional competencies identified as gaps.

Assessor Requirements

This section identifies the specific requirements on the vocational competence and experience for assessors, to ensure that they meet the needs of industry and their obligations under AQTF, and clarifies how others may contribute to the assessment process where one person alone does not hold all the required competencies.

Assessor Competencies

The AQTF specifies mandatory competency requirements for assessors. For information, Element 1.4 from the AQTF 2007 Essential Standards for Registration follows:

- 1.4 Training and assessment are conducted by trainers and assessors who:
- a) have the necessary training and assessment competencies as determined by the National Quality Council or its successors, and
 - b) have the relevant vocational competencies at least to the level being delivered or assessed, and
 - c) can demonstrate current industry skills directly relevant to the training/assessment being undertaken, and
 - d) continue to develop their Vocational Education and Training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

* See AQTF 2010 *Users' Guide to the Essential Standards for Registration* – Appendix 2

Designing Assessment Tools

This section provides an overview on the use and development of assessment tools.

Use of Assessment Tools

Assessment tools provide a means of collecting the evidence that assessors use in making judgements about whether candidates have achieved competency.

There is no set format or process for the design, production or development of assessment tools. Assessors may use prepared assessment tools, such as those specifically developed to support this Training Package, or they may develop their own.

Using Prepared Assessment Tools

If using prepared assessment tools, assessors should ensure these relate to the current version of the relevant unit of competency. The current unit of competency can be checked on the National Register <www.ntis.gov.au>.

Developing Assessment Tools

When developing their own assessment tools, assessors must ensure that the tools:

- are benchmarked against the relevant unit or units of competency;
- are reviewed as part of the validation of assessment strategies required under the AQTF; and
- meet the assessment requirements expressed in the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

A key reference for assessors developing assessment tools is TAE10 Training and Education Training Package.

Language, Literacy and Numeracy

The design of assessment tools must reflect the language, literacy and numeracy competencies required for the performance of a task in the workplace and not exceed these expectations.

Conducting Assessment

This section details the mandatory assessment requirements and provides information on equity in assessment including reasonable adjustment.

Mandatory Assessment Requirements

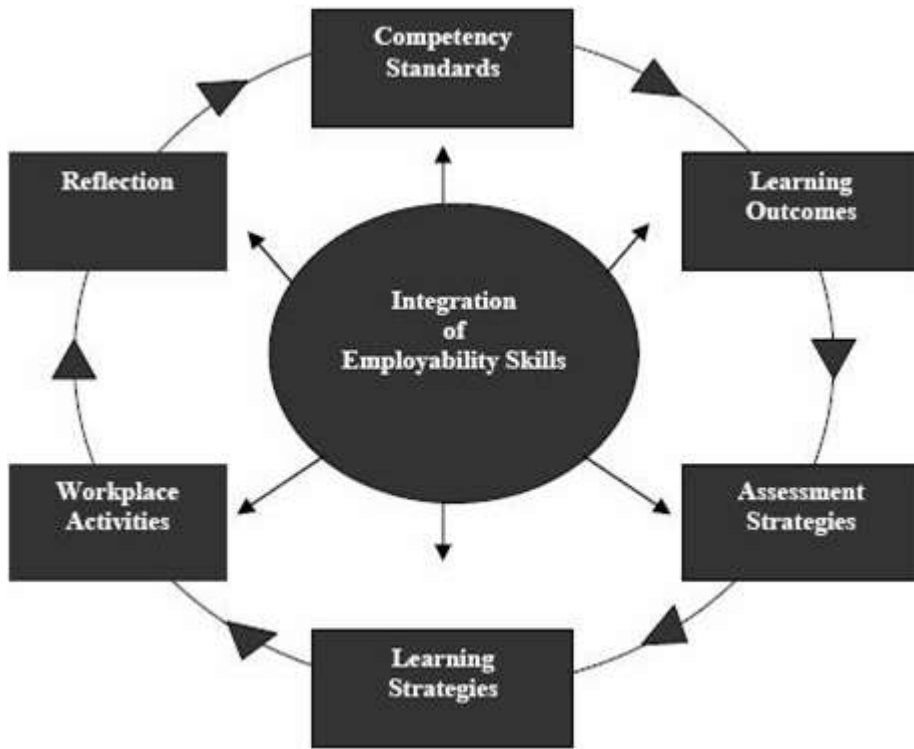
Assessments must meet the criteria set out in the AQTF 2010 Essential Standards for Initial and Continuing Registration. For information, the mandatory assessment requirements from Standard 1 from the AQTF 2010 Essential Standards for Initial and Continuing Registration are as follows:

1.5 Assessment, including Recognition of Prior Learning (RPL):

- a) meets the requirements of the relevant Training Package or accredited course
- b) is conducted in accordance with the principles of assessment and the rules of evidence
- c) meets workplace and, where relevant, regulatory requirements
- d) is systematically validated.

Assessment of Employability Skills

Employability Skills are integral to workplace competency. As such, they must be considered in the design, customisation, delivery and assessment of vocational education and training programs in an integrated and holistic way, as represented diagrammatically below.



Employability Skills are embedded within each unit of competency, and an Employability Skills Summary is available for each qualification. Training providers must use Employability Skills information in order to design valid and reliable training and assessment strategies. This analysis could include:

- reviewing units of competency to locate relevant Employability Skills and determine how they are applied within the unit
- analysing the Employability Skills Summary for the qualification in which the unit or units are packaged to help clarify relevant industry and workplace contexts and the application of Employability Skills at that qualification outcome
- designing training and assessment to address Employability Skills requirements.

The National Quality Council has endorsed a model for assessing and reporting Employability Skills, which contains further suggestions about good practice strategies in teaching, assessing, learning and reporting Employability Skills. The model is available from <http://www.training.com.au/>.

The endorsed approach includes learners downloading qualification specific Employability Skills Summaries for Training Package qualifications from an online repository at <http://employabilityskills.training.com.au>

For more information on Employability Skills in ForestWorks Training Packages go to the ForestWorks website at www.forestworks.com.au

Employability Skills are reported on each qualification using the following statement on the qualification testamur: "A summary of the Employability Skills developed through this qualification can be downloaded from <http://employabilityskills.training.com.au> "

Access and Equity

An individual's access to the assessment process should not be adversely affected by restrictions placed on the location or context of assessment beyond the requirements specified in this Training Package: training and assessment must be bias-free.

Under the rules for their development, Training Packages must reflect and cater for the increasing diversity of Australia's VET clients and Australia's current and future workforce. The flexibilities offered by Training Packages should enhance opportunities and potential outcomes for all people so that we can all benefit from a wider national skills base and a shared contribution to Australia's economic development and social and cultural life.

Reasonable Adjustments

It is important that education providers take meaningful, transparent and reasonable steps to consult, consider and implement reasonable adjustments for students with disability.

Under the Disability Standards for Education 2005, education providers must make reasonable adjustments for people with disability to the maximum extent that those adjustments do not cause that provider unjustifiable hardship. While 'reasonable adjustment' and 'unjustifiable hardship' are different concepts and involve different considerations, they both seek to strike a balance between the interests of education providers and the interests of students with and without disability.

An adjustment is any measure or action that a student requires because of their disability, and which has the effect of assisting the student to access and participate in education and training on the same basis as students without a disability. An adjustment is reasonable if it achieves this purpose while taking into account factors such as the nature of the student's disability, the views of the student, the potential effect of the adjustment on the student and others who might be affected, and the costs and benefits of making the adjustment.

An education provider is also entitled to maintain the academic integrity of a course or program and to consider the requirements or components that are inherent or essential to its nature when assessing whether an adjustment is reasonable. There may be more than one adjustment that is reasonable in a given set of circumstances; education providers are required to make adjustments that are reasonable and that do not cause them unjustifiable hardship. The Training Package Guidelines provides more information on reasonable *adjustment*, including examples of adjustments. Go to <http://www.deewr.gov.au/tpdh/Pages/home.aspx>.

Further Sources of Information

The section provides a listing of useful contacts and resources to assist assessors in planning, designing, conducting and reviewing of assessments against this Training Package.

Contacts

Industry Skills Council

ForestWorks

559a Queensberry Street
North Melbourne, Victoria 3051

Ph: +61 3 9321 3500

Fax: +61 3 9326 7800

Email: forestworks@forestworks.com.au

Web: www.forestworks.com.au

Technical and Vocational Education and
Training (TVET) Australia Limited

Level 21, 390 St Kilda Road, Melbourne
VIC 3150

PO Box 12211, A'Beckett Street Post Office,
Melbourne, Victoria, 8006

Ph: +61 3 9832 8100

Fax: +61 3 9832 8198

Email: sales@tvetaustralia.com.au

Web: www.tvetaustralia.com.au

For information on the TAE10 Training and
Education Training Package contact:

Innovation & Business Skills Australia

Level 11, 176 Wellington Parade
East Melbourne, Victoria 3002

Ph: (03) 9815 7000

Fax: (03) 9815 7001

Email: virtual@ibsa.org.au

Web: www.ibsa.org.au

General Resources

AQF Implementation Handbook, Fourth Edition 2007. Australian Qualifications Framework
Advisory Board, 2002 <www.aqf.edu.au>

*Australian Quality Training Framework (AQTF) and AQTF 2010 Users' Guide to the
Essential Standards for Registration* –

<http://www.training.com.au/pages/menuitem5cbe14d51b49dd34b225261017a62dbc.aspx>

For general information and resources go to <http://www.training.com.au/>

The National Register is an electronic database providing comprehensive information about
RTOs, Training Packages and accredited courses - <www.ntis.gov.au>

The Training Package Development Handbook site provides National Quality Council policy for the development of Training Packages. The site also provides guidance material for the application of that policy, and other useful information and links.

<http://www.deewr.gov.au/Skills/Overview/Policy/TPDH/Pages/main.aspx>

Assessment Resources

Registered training organisations (RTOs) are at the forefront of vocational education and training (VET) in Australia. They translate the needs of industry into relevant, quality, client-focussed training and assessment.

RTOs should strive for innovation in VET teaching and learning practices and develop highly flexible approaches to assessment which take cognisance of specific needs of learners, in order to improve delivery and outcomes of training.

Resources can be purchased or accessed from:

- TVET Australia – provides an integrated service to enable users of the national training system to identify and acquire training materials, identify copyright requirements and enter licenses for use of that material consistent with the scope and direction of the NQC.

<http://www.productservices.tvetaustralia.com.au/>

- ForestWorks

559a Queensberry Street

North Melbourne, Victoria 3051

Ph: +61 3 9321 3500

Fax: +61 3 9326 7800

Email: forestworks@forestworks.com.au

Web: www.forestworks.com.au

Competency Standards

Competency Standards

What is competency?

The broad concept of industry competency concerns the ability to perform particular tasks and duties to the standard of performance expected in the workplace. Competency requires the application of specified skills, knowledge and attitudes relevant to effective participation in an industry, industry sector or enterprise.

Competency covers all aspects of workplace performance and involves performing individual tasks; managing a range of different tasks; responding to contingencies or breakdowns; and, dealing with the responsibilities of the workplace, including working with others. Workplace competency requires the ability to apply relevant skills, knowledge and attitudes consistently over time and in the required workplace situations and environments. In line with this concept of competency Training Packages focus on what is expected of a competent individual in the workplace as an outcome of learning, rather than focussing on the learning process itself.

Competency standards in Training Packages are determined by industry to meet identified industry skill needs. Competency standards are made up of a number of units of competency each of which describes a key function or role in a particular job function or occupation. Each unit of competency within a Training Package is linked to one or more AQF qualifications.

Contextualisation of Units of Competency by RTOs

Registered Training Organisations (RTOs) may contextualise units of competency in this endorsed Training Package to reflect required local outcomes. Contextualisation could involve additions or amendments to the unit of competency to suit particular delivery methods, learner profiles, specific enterprise equipment requirements, or to otherwise meet local needs. However, the integrity of the overall intended outcome of the unit of competency must be maintained.

Any contextualisation of units of competency in this Training Package must be within the bounds of the following advice:

- RTOs must not remove or add to the number and content of elements and performance criteria.
- RTOs can include specific industry terminology in the range statement.
- Any amendments and additions to the range statement made by RTOs must not diminish the breadth of application of the competency, or reduce its portability.
- RTOs may add detail to the evidence guide in areas such as the critical aspects of evidence or required resources and infrastructure—but only where these expand the breadth of the competency and do not limit its use.

Components of Units of Competency

The components of units of competency are summarised below, in the order in which they appear in each unit of competency.

Unit Title

The unit title is a succinct statement of the outcome of the unit of competency. Each unit of competency title is unique, both within and across Training Packages.

Unit Descriptor

The unit descriptor broadly communicates the content of the unit of competency and the skill area it addresses. Where units of competency have been contextualised from units of competency from other endorsed Training Packages, summary information is provided. There may also be a brief second paragraph that describes its relationship with other units of competency, and any licensing requirements.

Employability Skills

This sub-section contains a statement that the unit contains Employability skills.

Pre-requisite Units (optional)

If there are any units of competency that must be completed before the unit, these will be listed.

Application of the Unit

This sub-section fleshes out the unit of competency's scope, purpose and operation in different contexts, for example, by showing how it applies in the workplace.

Competency Field (Optional)

The competency field either reflects the way the units of competency are categorised in the Training Package or denotes the industry sector, specialisation or function. It is an optional component of the unit of competency.

Sector (optional)

The industry sector is a further categorisation of the competency field and identifies the next classification, for example an elective or supervision field.

Elements of Competency

The elements of competency are the basic building blocks of the unit of competency. They describe in terms of outcomes the significant functions and tasks that make up the competency.

Performance Criteria

The performance criteria specify the required performance in relevant tasks, roles, skills and in the applied knowledge that enables competent performance. They are usually written in passive voice. Critical terms or phrases may be written in bold italics and then defined in range statement, in the order of their appearance in the performance criteria.

Required Skills and Knowledge

The essential skills and knowledge are either identified separately or combined. *Knowledge* identifies what a person needs to know to perform the work in an informed and effective manner. *Skills* describe the application of knowledge to situations where understanding is converted into a workplace outcome.

Range Statement

The range statement provides a context for the unit of competency, describing essential operating conditions that may be present with training and assessment, depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. As applicable, the meanings of key terms used in the performance criteria will also be explained in the range statement.

Evidence Guide

The evidence guide is critical in assessment as it provides information to the Registered Training Organisation (RTO) and assessor about how the described competency may be demonstrated. The evidence guide does this by providing a range of evidence for the assessor to make determinations, and by providing the assessment context. The evidence guide describes:

- conditions under which competency must be assessed including variables such as the assessment environment or necessary equipment;
- relationships with the assessment of any other units of competency;
- suitable methodologies for conducting assessment including the potential for workplace simulation;
- resource implications, for example access to particular equipment, infrastructure or situations;
- how consistency in performance can be assessed over time, various contexts and with a range of evidence; and
- the required underpinning knowledge and skills

Employability Skills in Units of Competency

The detail and application of Employability Skills facets will vary according to the job-role requirements of each industry. In developing Training Packages, industry stakeholders are consulted to identify appropriate facets of Employability Skills which are incorporated into the relevant units of competency and qualifications.

Employability Skills are not a discrete requirement contained in units of competency (as was the case with Key Competencies). Employability Skills are specifically expressed in the context of the work outcomes described in units of competency and will appear in elements, performance criteria, range statements and evidence guides. As a result, users of Training Packages are required to review the entire unit of competency in order to accurately determine Employability Skills requirements.

How Employability Skills relate to the Key Competencies

The eight nationally agreed Employability Skills now replace the seven Key Competencies in Training Packages. Trainers and assessors who have used Training Packages prior to the introduction of Employability Skills may find the following comparison useful.

Employability Skills Mayer Key Competencies

Communication	Communicating ideas and information
Teamwork	Working with others and in teams
Problem solving	Solving problems Using mathematical ideas and techniques

Initiative and enterprise

Planning and organising
Collecting, analysing and organising information
Planning and organising activities

Self-management

Learning

Technology Using technology

When analysing the above table it is important to consider the relationship and natural overlap of Employability Skills. For example, using technology may involve communication skills and combine the understanding of mathematical concepts.

Explicitly embedding Employability Skills in units of competency

This Training Package seeks to ensure that industry-endorsed Employability Skills are explicitly embedded in units of competency. The application of each skill and the level of detail included in each part of the unit will vary according to industry requirements and the nature of the unit of competency.

Employability Skills must be both explicit and embedded within units of competency. This means that Employability Skills will be:

- embedded in units of competency as part of the other performance requirements that make up the competency as a whole
- explicitly described within units of competency to enable Training Packages users to identify accurately the performance requirements of each unit with regards to Employability Skills.

This Training Package also seeks to ensure that Employability Skills are well-defined and written into units of competency so that they are apparent, clear and can be delivered and assessed as an essential component of unit work outcomes.

Sample unit of competency components showing Employability Skills

The following table shows the sequence of a unit of competency, and each cell contains text taken from a range of units. It provides examples of where and how various Employability Skills could be embedded in each component.

Please note that in the example, the bracketed Employability Skills are provided for clarification only and would not be present in units of competency within this Training Package.

Unit Title	Give formal presentations and take part in meetings (Communication)
Unit Descriptor	This unit covers the skills and knowledge required to promote the use and implementation of innovative work practices to effect change. (Initiative and enterprise)

Element	Proactively resolve issues. (problem solving)
Performance Criteria	Information is organised in a format suitable for analysis and dissemination in accordance with organisational requirements. (Planning and organising)
Range Statement	Software applications may include email, internet, word processing, spreadsheet, database or accounting packages. (technology) Modify activities depending on differing workplace contexts, risk situations and environments. (Learning)
Required Skills and Knowledge	Work collaboratively with others during a fire emergency. (teamwork) Instructions, procedures and other information relevant the maintenance of vessel and port security. (Communication)
Evidence Guide	Evidence of having worked constructively with a wide range of community groups and stakeholders to solve problems and adapt or design new solutions to meet identified needs in crime prevention. In particular, evidence must be obtained on the ability to: <ul style="list-style-type: none"> • assess response options to identified crime-prevention needs and determine the optimal action to be implemented • in consultation with relevant others, design an initiative to address identified issues. (Initiative and enterprise).

Employability Skills Summaries and units of competency

An Employability Skills Summary exists for each qualification. Summaries include broad advice on industry expectations with regard to Employability Skills at the qualification level. Summaries should be used by trainers and assessors to assist in identifying the Employability Skills requirements contained within units of competency

Licensing_Regulation Requirements

Licensing/Registration Requirements

Licensing/Registration Requirements – Industry Specific Advice

Licensing/registration requirements for particular job functions described in units of competency vary significantly. There are variations between states and territories, and also between individual mills depending on the equipment and processes being used.

Organisations delivering training must determine the applicable licensing requirements associated with the equipment being used in the relevant states and territories. To assist this, some units note that specific licensing/registration requirements may apply.

Furthermore, the relevant units stipulate that any applicable licensing/registration requirements must be met separately and prior to the achievement of the respective unit from this training package. Therefore, both assessors and candidates must hold the relevant licensing/registration requirements prior to commencing training or assessing in the respective units from this training package.

As such, the units of competency contained in this training package do not cover licensing/registration requirements.

FPP20110 Certificate II in Pulping Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Complete workplace forms • Read and interpret required documentation, procedures and reports • Use required forms of communication in applying basic quality practices
Teamwork	<ul style="list-style-type: none"> • Complete work in accordance with procedures and obtain appropriate sign off as required • Interpret and apply quality standards and procedures to individual and team work in accordance with sop • Work as part of a team
Problem-solving	<ul style="list-style-type: none"> • Identify and action problems within level of responsibility • Make adjustments to processes in order to maintain specified product quality • Recognise non-standard situations and determine an appropriate action consistent with operating guidelines
Initiative and enterprise	<ul style="list-style-type: none"> • Identify and report faulty equipment according to SOP • Monitor and interpret information in relation to process control points • Query or raise matters about the scope of work if it varies from that normally undertaken
Planning and organising	<ul style="list-style-type: none"> • Identify and schedule housekeeping requirements as appropriate • Prioritise work station's process control points for checking and maintaining quality • Prioritise the need for corrective action based on potential risk or loss or damage if the required actions are not performed
Self-management	<ul style="list-style-type: none"> • Plan own work, including predicting consequences and identifying improvements • Read relevant safety information and apply safety

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

precautions appropriate to the task/relevant to the practical operation of the process

- Undertake work strictly in accordance with the provisions of any permit

Employability Skill

Industry/enterprise requirements for this qualification include:

Learning

- Correctly identify waste materials
- Keep informed about changes to company quality assurance policy, practices and procedures
- Make adjustments according to sops

Technology

- Access, navigate and enter computer-based information
- Keep plant and equipment clean and tidy
- Record inspections, process variable values and/or test information in the reporting/recording system

-
-

Packaging Rules

Qualification Notes

Total number of units = 12

2 Core units *plus*

10 Elective units

At least 1 and up to 4 elective units must be selected from a single Industry Specific group **(Groups A-I)**

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Communication
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course. Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content

Please note that imported units from other Training Packages are for the purpose of Industry assessment only and that any licensing requirements are to be dealt with through specific Licensing units, undertaken prior to this qualification and in such a manner as to meet state and territory licensing requirements

CORE UNITS

Unit Code Unit Name

FPPQAS210A Apply basic quality practices

MSAPMSUP101A Clean workplace or equipment

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group A: Chemical recovery operations

(co-located in Certificate II Papermaking Operations)

FPPREC210A Monitor and control chemical recovery operations

Group B: Steam generation

(co-located in Certificate II Papermaking Operations)

FPPSTM210A Monitor and control boiler operation

Group C: Electrical power generation

(co-located in Certificate II Papermaking Operations)

FPPEPG210A Monitor and control power generation system

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group D: Stock preparations operations

FPPSPR210A Monitor and control stock preparation systems

Group E: Pulping operations

FPPPUL210A Monitor and control pulping operations

Group F: Waste paper operations

FPPWPO210A Monitor and control waste paper operations

Group G: Primary resource operations

FPPRES210A Prepare and operate the woodchip production system

FPPRES250A Distribute woodchips

FPPRES260A Receive materials (co-located in Supplementary Electives)

FPPRES270A Unload materials (co-located in Supplementary Electives)

Group H: Water services

(co-located in Supplementary Electives and Certificate II in Papermaking Operations)

FPPWAS210A Operate water systems

Group I: Handling and preparing waste paper for pulp production

FPPHWP250A Store and dispatch waste paper

FPPHWP260A Receive waste paper

FPPHWP270B Unload waste paper

Group J: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Chemical preparation

FPPCPR210A Prepare chemical products

Computer / process control equipment

FPPCSK310A Operate process control equipment

MSAPMOPS212A Use enterprise computers or data systems

Emergency procedures / safety

MSAPMOHS110A Follow emergency response procedures

PMAOHS211B Prepare equipment for emergency response

Environmental monitoring

FPPENV210A Identify and monitor environmental discharges/emissions

Group J: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

First aid

HLTFA301B Apply first aid

MSAPMOHS220A Provide initial first aid response

Load shifting

FPPMHV210A Operate overhead crane

TLID1007C Operate a forklift

TLID107C Shift materials safely using manual handling methods

TLID1107C Conduct specialised forklift operations

TLID1307C Move materials mechanically using automated equipment

TLID207C Shift a load using manually-operated equipment

TLID2407C Use specialised liquid bulk transfer equipment (gravity/pressurised)

TLID307E Handle dangerous goods/hazardous substances

TLID3107C Rig load

TLID3507C Operate a boom type elevating work platform

TLID407C Load and unload goods/cargo

TLID707C Prepare cargo for transfer with slings

Planning and organising

FPPPLN210A Plan and undertake a routine task

MEM14005A Plan a complete activity

Preventative maintenance / operator maintainer

FPPPRM210A Undertake operator level preventative maintenance

FPPPRM220A Perform lubrication

MEM09002B Interpret technical drawings

MEM12023A Perform engineering measurements

MEM18001C Use hand tools

MEM18002B Use power tools/hand held operations

MEM18055B Dismantle, replace and assemble engineering components

MSACMT281A Contribute to the application of a proactive maintenance strategy

Water services

FPPWAS210A Operate water systems (co-located in Industry Specific: Group H)

Group K: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Training and assessment

TAEASS301A Contribute to assessment

TAEDEL301A Provide work skill instruction

Laboratory operations

MSL904001A Perform standard calibration

MSL973001A Perform basic tests

Business support

FPPREL210A Contribute to effective working relationships
 BSBWRK402A Empower workers
 BSBWRK403A Communicate with workers
 BSBWRK409A Prepare for and participate in dispute resolution
 TLIA2207C Participate in stocktakes

Production support

FPPPRS210A Identify and rectify problems in the workplace
 FPPPRV210A Operate ancillary equipment
 MSACMS401A Ensure process improvements are sustained
 MSACMT220A Apply quick changeover procedures
 MSACMT240A Apply 5S procedures in a manufacturing environment
 MSACMT250A Monitor process capability
 MSACMT432A Analyse manual handling processes
 MSACMT451A Mistake proof a production process

Security

CPPSEC2011A Control access to and exit from premises
 CPPSEC2015A Patrol premises

Ordering / distribution / storage

FPPPUL250A Store and distribute pulped product
 FPPRES260A Receive materials (co-located in Industry Specific: Group G)
 FPPRES270A Unload materials (co-located in Industry Specific: Group G)
 MEM11016B Order materials
 TLIA1207C Pick and process orders
 TLIA1607C Use inventory systems to organise stock control

Group K: SUPPORT ELECTIVES

Unit Code Unit Name

Numeracy

FPPNUM210A Estimate and calculate basic data
 MEM12024A Perform computations
 MSACMT230A Apply cost factors to work practices

OHS

FPPOHS210A Participate in OHS processes
 FPPOHS310A Contribute to OHS processes

Communication

BSBCMM101A Apply basic communication skills
 BSBCMM201A Communicate in the workplace

Sustainability

FPPSUS210A Apply sustainable work practices/policies
 MSACMT270A Use sustainable energy practices
 MSACMT271A Use sustainable environmental practices

FPP20210 Certificate II in Papermaking Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Complete workplace forms • Read and interpret required documentation, procedures and reports • Use required forms of communication in applying basic quality practices
Teamwork	<ul style="list-style-type: none"> • Complete work in accordance with procedures and obtain appropriate sign off as required • Interpret and apply quality standards and procedures to individual and team work in accordance with sop • Work as part of a team
Problem-solving	<ul style="list-style-type: none"> • Identify and action problems within level of responsibility • Make adjustments to processes in order to maintain specified product quality • Recognise non-standard situations and then determine an appropriate action which is consistent with operating guidelines
Initiative and enterprise	<ul style="list-style-type: none"> • Identify and report faulty equipment according to SOP • Monitor and interpret information in relation to process control points • Query or raise matters about the scope of work if it varies from that normally undertaken
Planning and organising	<ul style="list-style-type: none"> • Identify and schedule housekeeping requirements as appropriate • Prioritise work station's process control points for checking and maintaining quality • Prioritise the need for corrective action based on potential risk or loss or damage if the required actions are not performed
Self-management	<ul style="list-style-type: none"> • Plan own work, including predicting consequences and identifying improvements • Read relevant safety information and apply safety

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

precautions appropriate to the task/relevant to the practical operation of the process

- Undertake work strictly in accordance with the provisions of any permit

Employability Skill

Industry/enterprise requirements for this qualification include:

Learning

- Correctly identify waste materials
- Keep informed about changes to company quality assurance policy, practices and procedures
- Make adjustments according to sop

Technology

- Access, navigate and enter computer-based information
- Keep plant and equipment clean and tidy
- Record inspections, process variable values and/or test information in the reporting/recording system

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Packaging Rules

Qualification Notes

Total number of units = 12

2 Core units *plus*

10 Elective units

At least 1 and up to 4 elective units must be selected from a single Industry Specific group **(Groups A-I)**

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Communication
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course. Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content

Please note that imported units from other Training Packages are for the purpose of Industry assessment only and that any licensing requirements are to be dealt with through specific Licensing units, undertaken prior to this qualification and in such a manner as to meet state and territory licensing requirements

CORE UNITS

Unit Code Unit Name

FPPQAS210A Apply basic quality practices

MSAPMSUP101A Clean workplace or equipment

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group A: Chemical recovery operations

(co-located in Certificate II Pulping Operations)

FPPREC210A Monitor and control chemical recovery operations

Group B: Steam generation

(co-located in Certificate II Pulping Operations)

FPPSTM210A Monitor and control boiler operation

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group C: Electrical power generation

(co-located in Certificate II Pulping Operations)

FPPEPG210A Monitor and control power generation system

Group D: Wet end operations

FPPWEO210A Monitor and control wet end operations

Group E: Dry end operations

FPPDEO210A Monitor and control dry end operations

Group F: Coated paper processes

FPPCPP210A Monitor and control coated paper processes

Group G: Finishing and converting

FPPFCO210A Monitor, control and shut down finishing and converting operations

Group H: Water services

(co-located in Supplementary Electives and Certificate II Pulping Operations)

FPPWAS210A Operate water systems

Group I: Warehousing and dispatch

FPPWAR250A Store product

FPPWAR255A Prepare and dispatch product

FPPWAR280A Warehouse product packaging

Group J: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Chemical preparation

FPPCPR210A Prepare chemical products

Computer / process control equipment

FPPCSK310A Operate process control equipment

MSAPMOPS212A Use enterprise computers or data systems

Emergency procedures / safety

MSAPMOHS110A Follow emergency response procedures

PMAOHS211B Prepare equipment for emergency response

Environmental monitoring

FPPENV210A Identify and monitor environmental discharges/emissions

First aid

HLTFA301B Apply first aid

MSAPMOHS220A Provide initial first aid response

Group J: SUPPLEMENTARY ELECTIVES**Unit Code Unit Name****Load shifting**

FPPMHV210A Operate overhead crane

TLID1007C Operate a forklift

TLID107C Shift materials safely using manual handling methods

TLID1107C Conduct specialised forklift operations

TLID1307C Move materials mechanically using automated equipment

TLID207C Shift a load using manually-operated equipment

TLID2407C Use specialised liquid bulk transfer equipment (gravity/pressurised)

TLID307E Handle dangerous goods/hazardous substances

TLID3107C Rig load

TLID3507C Operate a boom type elevating work platform

TLID407C Load and unload goods/cargo

TLID707C Prepare cargo for transfer with slings

Planning and organising

FPPPLN210A Plan and undertake a routine task

MEM14005A Plan a complete activity

Preventative maintenance / operator maintainer

FPPPRM210A Undertake operator level preventative maintenance

FPPPRM220A Perform lubrication

MEM09002B Interpret technical drawings

MEM12023A Perform engineering measurements

MEM18001C Use hand tools

MEM18002B Use power tools/hand held operations

MEM18055B Dismantle, replace and assemble engineering components

MSACMT281A Contribute to the application of a proactive maintenance strategy

Water services

FPPWAS210A Operate water systems (co-located in Industry Specific: Group H)

Primary resource operations

FPPRES260A Receive materials

FPPRES270A Unload materials

Training and assessment

TAEASS301A Contribute to assessment

TAEDEL301A Provide work skill instruction

Laboratory operations

MSL904001A Perform standard calibration

MSL973001A Perform basic tests

Business support

FPPREL210A Contribute to effective working relationships

BSBWRK402A Empower workers

BSBWRK403A Communicate with workers

BSBWRK409A Prepare for and participate in dispute resolution

TLIA2207C Participate in stocktakes

Production support

FPPPRS210A Identify and rectify problems in the workplace

FPPPRV210A Operate ancillary equipment

MSACMS401A Ensure process improvements are sustained

MSACMT220A Apply quick changeover procedures

MSACMT240A Apply 5S procedures in a manufacturing environment

MSACMT250A Monitor process capability

MSACMT432A Analyse manual handling processes

MSACMT451A Mistake proof a production process

Security

CPPSEC2011A Control access to and exit from premises

CPPSEC2015A Patrol premises

Ordering / distribution / storage

FPPPUL250A Store and distribute pulped product

MEM11016B Order materials

TLIA1207C Pick and process orders

TLIA1607C Use inventory systems to organise stock control

Group K: SUPPORT ELECTIVES

Unit Code Unit Name

Numeracy

FPPNUM210A Estimate and calculate basic data

MEM12024A Perform computations

MSACMT230A Apply cost factors to work practices

OHS

FPPOHS210A Participate in OHS processes

FPPOHS310A Contribute to OHS processes

Communication

BSBCMM101A Apply basic communication skills

BSBCMM201A Communicate in the workplace

Sustainability

FPPSUS210A Apply sustainable work practices/policies

MSACMT270A Use sustainable energy practices

MSACMT271A Use sustainable environmental practices

FPP30110 Certificate III in Pulping Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Document and report problems and solutions • Read and interpret required documentation, procedures and reports • Use required forms of communication in identifying and rectifying problems in the workplace
Teamwork	<ul style="list-style-type: none"> • Communicate in a way that responds positively to individual differences • Report problems and solutions to relevant personnel as required • Request advice and receive feedback
Problem-solving	<ul style="list-style-type: none"> • Analyse and use sensory information to adjust processes to maximise safety, quality and productivity • Identify and describe problems and their effects within OHS regulations, environmental and safe working requirements/practices, sop and housekeeping requirements • Rectify problems within level of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> • Determine impact of problems on machinery performance • Take timely corrective action to maximise safety, quality and productivity • Use troubleshooting guides and diagnostic procedures
Planning and organising	<ul style="list-style-type: none"> • Identify work requirements, and understand and process basic workplace documentation • Plan work priorities and arrangements • Prioritise possible causes for investigation
Self-management	<ul style="list-style-type: none"> • Analyse and determine possible problem causes in a timely manner • Maintain situational awareness in the work area • Respond to instructions or enquiries promptly and in accordance with organisational requirements

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

- | | |
|------------|---|
| Learning | <ul style="list-style-type: none"> • Communicate effectively with personnel to assist with analysis and resolution of operational problems • Identify, access and interpret relevant historical and operational data and information • Keep informed of changes to legislation, licensing and certification requirements |
| Technology | <ul style="list-style-type: none"> • Access, navigate and enter computer-based information • Select and use technology appropriate to communication tasks • Use electronic and other control systems to control equipment and processes as required |
| • | |
| • | |

Packaging Rules

Qualification Notes

Total number of units = 11

2 Core units *plus*

9 Elective units

At least 1 and up to 3 elective units must be selected from a single Industry Specific group (**Groups A-H**), and must include a start up, shut down or troubleshoot and rectify unit

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Quality
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course. Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content.

Please note that imported units from other Training Packages are for the purpose of Industry assessment only and that any licensing requirements are to be dealt with through specific Licensing units, undertaken prior to this qualification and in such a manner as to meet state and territory licensing requirements.

CORE UNITS

Unit Code Unit Name

FPPPRS210A Identify and rectify problems in the workplace

BSBCM201A Communicate in the workplace

ELECTIVE UNITS INDUSTRY SPECIFIC**Unit Code Unit Name**

Group A: Chemical recovery operations

(co-located in Certificate III Papermaking Operations)

FPPREC210A Monitor and control chemical recovery operations

FPPREC320A Prepare and start up chemical recovery operations

FPPREC330A Co-ordinate and implement chemical recovery shutdowns

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group B: Steam generation

(co-located in Certificate III Papermaking Operations)

FPPSTM210A Monitor and control boiler operation

FPPSTM320A Manage steam boiler startup

FPPSTM330A Shut down and bank steam boiler

Group C: Electrical power generation

(co-located in Certificate III Papermaking Operations)

FPPEPG210A Monitor and control power generation system

FPPEPG320A Manage a power generation system startup

FPPEPG330A Co-ordinate power generation system shutdown

Group D: Stock preparations operations

FPPSPR210A Monitor and control stock preparation systems

FPPSPR320A Prepare and start up stock preparation system for production

FPPSPR330A Co-ordinate and implement stock preparation system shutdown

Group E: Pulping operations

FPPPUL210A Monitor and control pulping operations

FPPPUL320A Prepare and start up pulping system operations

FPPPUL330A Co-ordinate and implement pulping plant shutdowns

Group F: Waste paper operations

FPPWPO210A Monitor and control waste paper operations

FPPWPO320A Prepare and start up waste paper operations

FPPWPO330A Co-ordinate and implement waste paper shutdown

Group G: Primary resource operations

FPPRES210A Prepare and operate the woodchip production system

FPPRES340A Troubleshoot and rectify primary resource operations

Group H: Water services

(co-located in Supplementary Electives and Certificate III Papermaking Operations)

FPPWAS340A Troubleshoot and rectify water systems

Group I: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Chemical preparation

FPPCPR210A Prepare chemical products

Computer / process control equipment

FPPCSK310A Operate process control equipment

MSAPMOPS212A Use enterprise computers or data systems

Emergency procedures / safety

BSBOHS402B Contribute to the implementation of the OHS consultation process

BSBOHS403B Identify hazards and assess OHS risks

BSBOHS407A Monitor a safe workplace

- MSAPMOHS110A Follow emergency response procedures
- PMAOHS211B Prepare equipment for emergency response
- Environmental monitoring
- FPPENV210A Identify and monitor environmental discharges/emissions
- FPPENV320A Monitor and control environmental hazards
- First aid
- HLTFA301B Apply first aid
- MSAPMOHS220A Provide initial first aid response
- Load shifting
- FPPMHV210A Operate overhead crane
- TLID1007C Operate a forklift
- TLID1107C Conduct specialised forklift operations
- TLID1307C Move materials mechanically using automated equipment
- TLID2407C Use specialised liquid bulk transfer equipment (gravity/pressurised)
- TLID307E Handle dangerous goods/hazardous substances
- TLID3107C Rig load
- TLID3507C Operate a boom type elevating work platform
- TLID707C Prepare cargo for transfer with slings
- Group I: SUPPLEMENTARY ELECTIVES**
- Unit Code Unit Name
- Planning and organising
- MEM14005A Plan a complete activity
- MEM30020A Develop and manage a plan for a simple manufacturing related project
- BSBADM405B Organise meetings
- Preventative maintenance / operator maintainer
- FPPPRM210A Undertake operator level preventative maintenance
- FPPPRM220A Perform lubrication
- MEM09002B Interpret technical drawings
- MEM12023A Perform engineering measurements
- MEM18001C Use hand tools
- MEM18002B Use power tools/hand held operations
- MEM18003C Use tools for precision work
- MEM18006C Repair and fit engineering components
- MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies
- MEM18009B Perform levelling and alignment of machines and engineering components
- MEM18010C Perform equipment condition monitoring and recording (*unit has pre-requisites*)
- MEM09002B Interpret technical drawing
- MEM12023A Perform engineering measurements
- MEM18001C Use hand tools
- MEM18002B Use power tools/hand held operations
- MEM18055B Dismantle, replace and assemble engineering components)
- MEM18055B Dismantle, replace and assemble engineering components
- MSACMT281A Contribute to the application of a proactive maintenance strategy
- Water services
- FPPWAS210A Operate water systems
- FPPWAS340A Troubleshoot and rectify water systems (*unit has pre-requisite*)
- (co-located in Industry Specific: Group H)
- Group I: SUPPLEMENTARY ELECTIVES**

Unit Code	Unit Name
Business support	
FPPREL210A	Contribute to effective working relationships
BSBFLM305C	Support operational plan
BSBFLM309C	Support continuous improvement systems and processes
BSBFLM311C	Support a workplace learning environment
BSBFLM312C	Contribute to team effectiveness
BSBRES401A	Analyse and present research information
BSBRSK401A	Identify risk and apply risk management processes
BSBWRK402A	Empower workers
BSBWRK403A	Communicate with workers
BSBWRK404A	Promote equality of opportunity and fair treatment for all workers
BSBWRK406A	Participate in the bargaining process
BSBWRK407A	Provide advice to union members
BSBWRK408A	Undertake negotiations
BSBWRK409A	Prepare for and participate in dispute resolution
Training and assessment	
TAEASS301A	Contribute to assessment
TAEDEL301A	Provide work skill instruction
TAEDEL404A	Mentor in the workplace
(The following 3 units count as 1 unit)	
TAEASS401A	Plan assessment activities and processes
TAEASS402A	Assess competence
TAEASS403A	Participate in assessment validation
Laboratory operations	
MSL904001A	Perform standard calibration
MSL973001A	Perform basic tests
Group I: SUPPLEMENTARY ELECTIVES	
Unit Code	Unit Name
Production support	
FPPPRS320A	Solve systemic problems in the workplace
FPPPRV210A	Operate ancillary equipment
FPPPRV320A	Co-ordinate and direct clothing changes
MEM18011C	Shut down and isolate machines/equipment
MSACMS401A	Ensure process improvements are sustained
MSACMT220A	Apply quick changeover procedures
MSACMT240A	Apply 5S procedures in a manufacturing environment
MSACMT250A	Monitor process capability
MSACMT432A	Analyse manual handling processes
MSACMT440A	Lead 5S in a manufacturing environment
MSACMT451A	Mistake proof a production process
Security	
CPPSEC2011A	Control access to and exit from premises
CPPSEC2015A	Patrol premises
CPPSEC3007A	Maintain security of environment
Turbine operations	
UEPOPS341A	Shut down a steam turbine
UEPOPS411A	Run up a steam turbine

Group J: SUPPORT ELECTIVES

Unit Code Unit Name

Numeracy

FPPNUM210A Estimate and calculate basic data

FPPNUM320A Measure and calculate routine workplace data

MSACMT452A Apply statistics to processes in manufacturing

OHS

FPPOHS310A Contribute to OHS processes

FPPOHS320A Maintain OHS processes

Quality

FPPQAS210A Apply basic quality practices

MSACMT251A Apply quality standards

Sustainability

FPPSUS210A Apply sustainable work practices/policies

MSACMT270A Use sustainable energy practices

MSACMT271A Use sustainable environmental practices

FPP30210 Certificate III in Papermaking Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Document and report problems and solutions • Read and interpret required documentation, procedures and reports • Use required forms of communication in identifying and rectifying problems in the workplace
Teamwork	<ul style="list-style-type: none"> • Communicate in a way that responds positively to individual differences • Report problems and solutions to relevant personnel as required • Request advice and receive feedback
Problem-solving	<ul style="list-style-type: none"> • Analyse and use sensory information to adjust process to maximise safety, quality and productivity • Identify and describe problems and their effects within OHS regulations, environmental and safe working requirements/practices, sop and housekeeping requirements • Rectify problems within level of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> • Determine impact of problems on machinery performance • Take timely corrective action to maximise safety, quality and productivity • Use troubleshooting guides and diagnostic procedures
Planning and organising	<ul style="list-style-type: none"> • Identify work requirements, and understand and process basic workplace documentation • Plan work priorities and arrangements • Prioritise possible causes for investigation
Self-management	<ul style="list-style-type: none"> • Analyse and determine possible problem causes in a timely manner • Maintain situational awareness in the work area • Respond to instructions or enquiries promptly and in accordance with organisational requirements

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

- | | |
|------------|---|
| Learning | <ul style="list-style-type: none"> • Communicate effectively with personnel to assist with analysis and resolution of operational problems • Identify, access and interpret relevant historical and operational data and information • Keep informed of changes to legislation, licensing and certification requirements |
| Technology | <ul style="list-style-type: none"> • Access, navigate and enter computer-based information • Select and use technology appropriate to communication tasks • Use electronic and other control systems to control equipment and processes as required |

Packaging Rules

Qualification Notes

Total number of units = 11

2 Core units *plus*

9 Elective units

At least 1 and up to 3 elective units must be selected from a single Industry Specific group (**Groups A-H**), and must include a start up, shut down or troubleshoot and rectify unit

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Quality
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course

Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content

Units previously achieved as part of the successful completion of another qualification in Pulp and Paper manufacturing may not be counted toward this qualification with the exception of Core units and Support Electives

CORE UNITS

Unit Code Unit Name

FPPPRS210A Identify and rectify problems in the workplace

BSBCM201A Communicate in the workplace

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group A: Chemical recovery operations

(co-located in Certificate III Pulping Operations)

FPPREC210A Monitor and control chemical recovery operations

FPPREC320A Prepare and start up chemical recovery operations

FPPREC330A Co-ordinate and implement chemical recovery plant shutdowns

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group B: Steam generation

(co-located in Certificate III Pulping Operations)

FPPSTM210A Monitor and control boiler operation

FPPSTM320A Manage steam boiler startup

FPPSTM330A Shut down and bank steam boiler

Group C: Electrical power generation

(co-located in Certificate III Pulping Operations)

FPPEPG210A Monitor and control power generation system

FPPEPG320A Manage a power generation system startup

FPPEPG330A Co-ordinate power generation system shutdown

Group D: Wet end operations

FPPWEO210A Monitor and control wet end operations

FPPWEO320A Prepare and start up wet end operations

FPPWEO330A Co-ordinate and implement wet end shutdown

Group E: Dry end operations

FPPDEO210A Monitor and control dry end operations

FPPDEO320A Prepare and start up dry end operations

FPPDEO330A Co-ordinate and implement dry end shutdown

Group F: Coated paper processes

FPPCPP210A Monitor and control coated paper processes

FPPCPP320A Prepare and start up coated paper processes

FPPCPP330A Co-ordinate the shutdown of coated paper processes

Group G: Finishing and converting

FPPFCO320A Prepare and start up finishing and converting operations

FPPFCO340A Troubleshoot and rectify finishing and converting systems

Group H: Water services

(co-located in Supplementary Electives and Certificate III Pulping Operations)

FPPWAS340A Troubleshoot and rectify water systems

Group I: **SUPPLEMENTARY ELECTIVES**

Unit Code Unit Name

Chemical preparation

FPPCPR210A Prepare chemical products

Computer / process control equipment

FPPCSK310A Operate process control equipment

MSAPMOPS212A Use enterprise computers or data systems

Emergency procedures / safety

BSBOHS402B Contribute to the implementation of the OHS consultation process

BSBOHS403B Identify hazards and assess OHS risks

BSBOHS407A Monitor a safe workplace

MSAPMOHS110A Follow emergency response procedures

PMAOHS211B Prepare equipment for emergency response
 Environmental monitoring
 FPPENV210A Identify and monitor environmental discharges/emissions
 FPPENV320A Monitor and control environmental hazards
 First aid
 HLTFA301B Apply first aid
 MSAPMOHS220A Provide initial first aid response
 Load shifting
 FPPMHV210A Operate overhead crane
 TLID1007C Operate a forklift
 TLID1107C Conduct specialised forklift operations
 TLID1307C Move materials mechanically using automated equipment
 TLID2407C Use specialised liquid bulk transfer equipment (gravity/pressurised)
 TLID307E Handle dangerous goods/hazardous substances
 TLID3107C Rig load
 TLID3507C Operate a boom type elevating work platform
 TLID707C Prepare cargo for transfer with slings
Group I: SUPPLEMENTARY ELECTIVES
 Unit Code Unit Name
 Planning and organising
 BSBADM405B Organise meetings
 MEM14005A Plan a complete activity
 MEM30020A Develop and manage a plan for a simple manufacturing related project
 Preventative maintenance / operator maintainer
 FPPPRM210A Undertake operator level preventative maintenance
 FPPPRM220A Perform lubrication
 MEM09002B Interpret technical drawings
 MEM12023A Perform engineering measurements
 MEM18001C Use hand tools
 MEM18002B Use power tools/hand held operations
 MEM18003C Use tools for precision work
 MEM18006C Repair and fit engineering components
 MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies
 MEM18009B Perform levelling and alignment of machines and engineering components
 MEM18010C Perform equipment condition monitoring and recording (*unit has pre-requisites* MEM09002B Interpret technical drawing
 MEM12023A Perform engineering measurements
 MEM18001C Use hand tools
 MEM18002B Use power tools/hand held operations
 MEM18055B Dismantle, replace and assemble engineering components)
 MEM18055B Dismantle, replace and assemble engineering components
 MSACMT281A Contribute to the application of a proactive maintenance strategy
 Water services
 FPPWAS210A Operate water systems
 FPPWAS340A Troubleshoot and rectify water systems (*unit has pre-requisite*)
 (co-located in Industry Specific: Group H)
Group I: SUPPLEMENTARY ELECTIVES
 Unit Code Unit Name

Business support

FPPREL210A Contribute to effective working relationships

BSBFLM305C Support operational plan

BSBFLM309C Support continuous improvement systems and processes

BSBFLM311C Support a workplace learning environment

BSBFLM312C Contribute to team effectiveness

BSBRES401A Analyse and present research information

BSBRSK401A Identify risk and apply risk management processes

BSBWRK402A Empower workers

BSBWRK403A Communicate with workers

BSBWRK404A Promote equality of opportunity and fair treatment for all workers

BSBWRK406A Participate in the bargaining process

BSBWRK407A Provide advice to union members

BSBWRK408A Undertake negotiations

BSBWRK409A Prepare for and participate in dispute resolution

Training and assessment

TAEASS301A Contribute to assessment

TAEDEL301A Provide work skill instruction

TAEDEL404A Mentor in the workplace

(The following 3 units count as 1 unit)

TAEASS401C Plan and organise assessment

TAEASS402A Assess competence

TAEASS403A Participate in assessment validation

Laboratory operations

MSL904001A Perform standard calibration

MSL973001A Perform basic tests

Group I: **SUPPLEMENTARY ELECTIVES**

Unit Code Unit Name

Production support

FPPPRS320A Solve systemic problems in the workplace

FPPPRV210A Operate ancillary equipment

FPPPRV320A Co-ordinate and direct clothing changes

MEM18011C Shut down and isolate machines/equipment

MSACMS401A Ensure process improvements are sustained

MSACMT220A Apply quick changeover procedures

MSACMT240A Apply 5S procedures in a manufacturing environment

MSACMT250A Monitor process capability

MSACMT432A Analyse manual handling processes

MSACMT440A Lead 5S in a manufacturing environment

MSACMT451A Mistake proof a production process

Security

CPPSEC2011A Control access to and exit from premises

CPPSEC2015A Patrol premises

CPPSEC3007A Maintain security of environment

Group J: **SUPPORT ELECTIVES**

Unit Code Unit Name

Numeracy

FPPNUM210A Estimate and calculate basic data

FPPNUM320A Measure and calculate routine workplace data
MSACMT452A Apply statistics to processes in manufacturing
OHS
FPPOHS310A Contribute to OHS processes
FPPOHS320A Maintain OHS processes
Quality
FPPQAS210A Apply basic quality practices
MSACMT251A Apply quality standards
Sustainability
FPPSUS210A Apply sustainable work practices/policies
MSACMT270A Use sustainable energy practices
MSACMT271A Use sustainable environmental practices

FPP40110 Certificate IV in Pulping Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

The following units of competency must be achieved either before or while undertaking Certificate IV in Pulping Operations

Please note that imported units from other Training Packages are for the purpose of Industry assessment only and that any licensing requirements are to be dealt with through specific Licensing Units, undertaken prior to this qualification and in such a manner as to meet state and territory licensing requirements

If **Group A** Elective is chosen:

FPPREC210A Monitor and control chemical recovery operations

FPPREC320A Prepare and start up chemical recovery operations

FPPREC330A Co-ordinate and implement chemical recovery shutdowns

If **Group B** Elective is chosen:

FPPSTM210A Monitor and control boiler operation

FPPSTM320A Manage steam boiler startup

FPPSTM330A Shut down and bank steam boiler

If **Group C** Elective is chosen:

FPPEPG210A Monitor and control power generation system

FPPEPG320A Manage a power generation system startup

FPPEPG330A Co-ordinate power generation system shutdown

If **Group D** Elective is chosen:

FPPSPR210A Monitor and control stock preparation systems

FPPSPR320A Prepare and start up stock preparation system for production

FPPSPR330A Co-ordinate and implement stock preparation system shutdown

If **Group E** Elective is chosen:

FPPPUL210A Monitor and control pulping operations

FPPPUL250A Store and distribute pulped product

FPPPUL320A Prepare and start up pulping system operations

If **Group F** Elective is chosen:

FPPWPO210A Monitor and control waste paper operations

FPPWPO320A Prepare and start up waste paper operations

FPPWPO330A Co-ordinate and implement waste paper shutdown

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Communicate effectively with others when collecting, analysing and presenting workplace data and information • Communicate outcomes of problem solutions to team and appropriate personnel • Read complex text
Teamwork	<ul style="list-style-type: none"> • Assemble team for analysis • Lead and manage team processes • Refer problems to appropriate group or department
Problem-solving	<ul style="list-style-type: none"> • Devise appropriate action and solutions to typical presentation and communication problems • Promptly report and/or rectify any identified problems that may arise when collecting, analysing and presenting workplace data and information in accordance with regulatory requirements and workplace procedures • Rectify problems within level of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> • Identify causes and effects of faults and corrective action on associated processes • Implement contingency plans if required • Modify activities depending on differing operational contingencies, risk situations and environments
Planning and organising	<ul style="list-style-type: none"> • Develop action plan including contingencies • Identify and organise resources to implement action plan • Organise and present processed information in a logical manner
Self-management	<ul style="list-style-type: none"> • Demonstrate leadership • Interpret and follow operational instructions and prioritise work • Maintain situational awareness in work area

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

Employability Skill	Industry/enterprise requirements for this qualification include:
Learning	<ul style="list-style-type: none"> • Assess available types of problem solving activities/methodologies and determine most appropriate, such as e-learning tools • Assist others to identify and resolve operational problems in the workplace • Assist team members where required
Technology	<ul style="list-style-type: none"> • Identify and use required communication and presentation technology • Solve systemic problems in the pulp and paper industry, typically involving complex integrated equipment and continuous operations • Use electronic and other control systems to control equipment and processes as required
	<ul style="list-style-type: none"> • •

Packaging Rules

Qualification Notes

Total number of units = 10

2 Core units *plus*

8 Elective units

A maximum of 1 elective unit must be selected from a single Industry Specific group
(Groups A-F)

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Quality
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course. Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content.

CORE UNITS

Unit Code Unit Name

FPPPRS320A Solve systemic problems in the workplace

TLIE607D Collect, analyse and present workplace data and information

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group A: Chemical recovery operations

(co-located in Certificate IV Papermaking Operations)

FPPREC440A Troubleshoot and rectify chemical recovery operations

Group B: Steam generation

(co-located in Certificate IV Papermaking Operations)

FPPSTM440A Troubleshoot and rectify boiler plant systems

Group C: Electrical power generation

(co-located in Certificate IV Papermaking Operations)

FPPEPG440A Troubleshoot and rectify power generation system

Group D: Stock preparations operations

FPPSPR440A Troubleshoot and rectify stock preparation systems

ELECTIVE UNITS INDUSTRY SPECIFIC

Unit Code Unit Name

Group E: Pulping operations

FPPPUL440A Troubleshoot and rectify pulping processes

Group F: Waste paper operations

FPPWPO440A Troubleshoot and rectify waste paper operations

Group G: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Computers / process control equipment

FPPCSK310A Operate process control equipment

Emergency procedures / safety

FPPOHS410A Identify, assess and control OHS risk in own work

BSBOHS401B Contribute to the implementation of a systematic approach to managing OHS

BSBOHS402B Contribute to the implementation of the OHS consultation process

BSBOHS403B Identify hazards and assess OHS risks

BSBOHS404B Contribute to the implementation of strategies to control OHS risk

BSBOHS405B Contribute to the implementation of emergency procedures

BSBOHS406B Use equipment to conduct workplace monitoring

BSBOHS407A Monitor a safe workplace

BSBOHS408A Assist with compliance with OHS and other relevant laws

MSAPMOHS110A Follow emergency response procedures

Environmental monitoring

FPPENV320A Monitor and control environmental hazards

First aid

MSAPMOHS220A Provide initial first aid response

Planning and organising

FPPPLN420A Plan a complex activity

BSBADM405B Organise meetings

MEM14005A Plan a complete activity

MEM30020A Develop and manage a plan for a simple manufacturing related project
 PSPPM402B Manage simple projects

Group G: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Water services

FPPWAS340A Troubleshoot and rectify water systems (*unit has pre-requisite*)

Business support

FPPQAS430A Oversee quality assurance process

BSBCMM401A Make a presentation

BSBFLM305C Support operational plan

BSBFLM309C Support continuous improvement systems and processes

BSBFLM311C Support a workplace learning environment

BSBREL401A Establish networks

BSBRSK401A Identify risk and apply risk management processes

BSBWOR401A Establish effective workplace relationships

BSBWOR402A Promote team effectiveness

BSBWRK402A Empower workers

BSBWRK403A Communicate with workers

BSBWRK404A Promote equality of opportunity and fair treatment for all workers

BSBWRK406A Participate in the bargaining process

BSBWRK407A Provide advice to union members

BSBWRK408A Undertake negotiations

BSBWRK409A Prepare for and participate in dispute resolution

MSAPMSUP382A Provide coaching/mentoring in the workplace

Group G: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Training and assessment

TAAASS501B Lead and coordinate assessment systems and services

TAADES502B Design and develop learning resources

TAEASS301A Contribute to assessment

TAEASS502A Develop assessment tools

TAEDEL401A Plan, organise and deliver group-based delivery

TAEDEL402A Plan, organise and facilitate learning in the workplace

TAEDEL404A Mentor in the workplace

TAEDES401A Design and develop learning programs

TAEDES402A Use training packages and accredited courses to meet client needs

TAETAS501A Undertake organisational training needs analysis

TAEASS401A Plan assessment activities and processes

TAEASS402A Assess competence

TAEASS403A Participate in assessment validation

Laboratory operations

MSL904001A Perform standard calibration

Production support

FPPPRV320A Co-ordinate and direct clothing changes

MEM18011C Shut down and isolate machines/equipment

MSACMC411A Lead a competitive manufacturing team

MSACMS400A Implement a competitive manufacturing system

MSACMS401A Ensure process improvements are sustained

MSACMT220A	Apply quick changeover procedures
MSACMT240A	Apply 5S procedures in a manufacturing environment
MSACMT250A	Monitor process capability
MSACMT432A	Analyse manual handling processes
MSACMT440A	Lead 5S in a manufacturing environment
MSACMT451A	Mistake proof a production process

Turbine operations

UEPOPS341A Shut down a steam turbine

UEPOPS411A Run up a steam turbine

Group H: SUPPORT ELECTIVES**Unit Code Unit Name****Numeracy**

FPPNUM320A	Measure and calculate routine workplace data
FPPNUM430A	Calculate and analyse production and financial performance
MSACMT452A	Apply statistics to processes in manufacturing

OHS

FPPOHS320A Maintain OHS processes

FPPOHS420A Manage OHS processes

Quality

FPPQAS420A Co-ordinate in-process quality assurance

MSACMT251A Apply quality standards

MSAPMSUP400A Develop and monitor quality systems

Sustainability

FPPSUS210A Apply sustainable work practices/policies

MSACMT270A Use sustainable energy practices

MSACMT271A Use sustainable environmental practices

MSAENV472B Implement and monitor environmentally sustainable work practices

FPP40210 Certificate IV in Papermaking Operations

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

The following units of competency must be achieved either before or while undertaking Certificate IV in Papermaking Operations

Please note that imported units from other Training Packages are for the purpose of Industry assessment only and that any licensing requirements are to be dealt with through specific Licensing Units, undertaken prior to this qualification and in such a manner as to meet state and territory licensing requirements

If **Group A** Elective is chosen:

FPPREC210A Monitor and control chemical recovery operations

FPPREC320A Prepare and start up chemical recovery operations

FPPREC330A Co-ordinate and implement chemical recovery shutdowns

If **Group B** Elective is chosen:

FPPSTM210A Monitor and control boiler operation

FPPSTM320A Manage steam boiler startup

FPPSTM330A Shut down and bank steam boiler

If **Group C** Elective is chosen:

FPPEPG210A Monitor and control power generation system

FPPEPG320A Manage a power generation system startup

FPPEPG330A Co-ordinate power generation system shutdown

If **Group D** Elective is chosen:

FPPWEO210A Monitor and control wet end operations

FPPWEO320A Prepare and start up wet end operations

FPPWEO330A Co-ordinate and implement wet end shutdown

If **Group E** Elective is chosen:

FPPDEO210A Monitor and control dry end operations

FPPDEO320A Prepare and start up dry end operations

FPPDEO330A Co-ordinate and implement dry end shutdown

If **Group F** Elective is chosen

FPPCPP210A Monitor and control coated paper processes

FPPCPP320A Prepare and start up coated paper processes

FPPCPP330A Co-ordinate the shutdown of coated paper processes

If **Group G** Elective is chosen:

FPPFCO210A Monitor, control and shut down finishing and converting operations

FPPFCO320A Prepare and start up finishing and converting operations

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
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Teamwork	<ul style="list-style-type: none"> • Assemble team for analysis • Lead and manage team processes • Refer problems to appropriate group or department
Problem-solving	<ul style="list-style-type: none"> • Devise appropriate action and solutions to typical presentation and communication problems • Promptly report and/or rectify any identified problems that may arise when collecting, analysing and presenting workplace data and information in accordance with regulatory requirements and workplace procedures • Rectify problems within level of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> • Identify causes and effects of faults and corrective action on associated processes • Implement contingency plans if required • Modify activities depending on differing operational contingencies, risk situations and environments
Planning and organising	<ul style="list-style-type: none"> • Develop action plan including contingencies • Identify and organise resources to implement action plan • Organise and present processed information in a logical manner
Self-management	<ul style="list-style-type: none"> • Demonstrate leadership • Interpret and follow operational instructions and prioritise work • Maintain situational awareness in work area

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

- | | |
|------------|--|
| Learning | <ul style="list-style-type: none"> • Assess available types of problem solving activities/methodologies and determine most appropriate, such as e-learning tools • And determine most appropriate, such as e-learning tools • Assist others to identify and resolve operational problems in the workplace • Assist team members where required |
| Technology | <ul style="list-style-type: none"> • Identify and use required communication and presentation technology • Solve systemic problems in the pulp and paper industry, which typically involves complex integrated equipment and continuous operations • Use electronic and other control systems to control equipment and processes as required |
| • | |
| • | |

Packaging Rules

Qualification Notes

Total number of units = 10

2 Core units *plus*

8 Elective units

A maximum of 1 elective unit must be selected from a single Industry Specific group

(Groups A-I)

A maximum of 1 elective unit must be selected from *each* of the following Support Electives groups

- Quality
- Numeracy
- OHS
- Sustainability

Remaining electives may be selected from the Supplementary Electives list and can include up to 2 units from an endorsed Training Package or State/Territory accredited course. Elective units must be relevant to the work outcome sought, industry requirements and the qualification level. Units selected must not duplicate each other in content.

CORE UNITS

Unit Code Unit Name

FPPPRS320A Solve systemic problems in the workplace

TLIE607D Collect, analyse and present workplace data and information

ELECTIVE UNITS INDUSTRY SPECIFIC**Unit Code Unit Name****Group A: Chemical recovery operations**

(co-located in Certificate IV Papermaking Operations)

FPPREC440A Troubleshoot and rectify chemical recovery operations

Group B: Steam generation

(co-located in Certificate IV Papermaking Operations)

FPPSTM440A Troubleshoot and rectify boiler plant systems

Group C: Electrical power generation

(co-located in Certificate IV Papermaking Operations)

FPPEPG440A Troubleshoot and rectify power generation system

Group D: Wet end operations

FPPWEO440A Troubleshoot and rectify wet end systems

ELECTIVE UNITS INDUSTRY SPECIFIC**Unit Code Unit Name****Group E: Dry end operations**

FPPDEO440A Troubleshoot and rectify dry end systems

Group F: Coated paper processes

FPPCPP440A Troubleshoot and rectify coated paper processes

Group G: Finishing and converting

FPPFCO340A Troubleshoot and rectify finishing and converting systems

Group H: SUPPLEMENTARY ELECTIVES**Unit Code Unit Name**

Computers / process control equipment

FPPCSK310A Operate process control equipment

Emergency procedures / safety

FPPOHS410A Identify, assess and control OHS risk in own work

BSBOHS401B Contribute to the implementation of a systematic approach to managing OHS

BSBOHS402B Contribute to the implementation of the OHS consultation process

BSBOHS403B Identify hazards and assess OHS risks

BSBOHS404B Contribute to the implementation of strategies to control OHS risk

BSBOHS405B Contribute to the implementation of emergency procedures

BSBOHS406B Use equipment to conduct workplace monitoring

BSBOHS407A Monitor a safe workplace

BSBOHS408A Assist with compliance with OHS and other relevant laws

MSAPMOHS110A Follow emergency response procedures

Environmental monitoring

FPPENV320A Monitor and control environmental hazards

First aid

MSAPMOHS220A Provide initial first aid response

Planning and organising

FPPPLN420A Plan a complex activity

BSBADM405B Organise meetings
 MEM14005A Plan a complete activity
 MEM30020A Develop and manage a plan for a simple manufacturing related project
 PSPPM402B Manage simple projects
 Group H: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Water services

FPPWAS340A Troubleshoot and rectify water systems (*unit has pre-requisite*)

Business support

FPPQAS430A Oversee quality assurance process
 BSBCMM401A Make a presentation
 BSBFLM305C Support operational plan
 BSBFLM309C Support continuous improvement systems and processes
 BSBFLM311C Support a workplace learning environment
 BSBREL401A Establish networks
 BSBRSK401A Identify risk and apply risk management processes
 BSBWOR401A Establish effective workplace relationships
 BSBWOR402A Promote team effectiveness
 BSBWRK402A Empower workers
 BSBWRK403A Communicate with workers
 BSBWRK404A Promote equality of opportunity and fair treatment for all workers
 BSBWRK406A Participate in the bargaining process
 BSBWRK407A Provide advice to union members
 BSBWRK408A Undertake negotiations
 BSBWRK409A Prepare for and participate in dispute resolution
 MSAPMSUP382A Provide coaching/mentoring in the workplace

Training and assessment

TAAASS501B Lead and coordinate assessment systems and services
 TAADES502B Design and develop learning resources
 TAEASS301A Contribute to assessment
 TAEASS502A Develop assessment tools
 TAEDDEL401A Plan, organise and deliver group-based delivery
 TAEDDEL402A Plan, organise and facilitate learning in the workplace
 TAEDDEL404A Mentor in the workplace
 TAEDDES401A Design and develop learning programs
 TAEDDES402A Use training packages and accredited courses to meet client needs
 TAETAS501A Undertake organisational training needs analysis

Group H: SUPPLEMENTARY ELECTIVES

Unit Code Unit Name

Training and assessment

TAEASS401A Plan assessment activities and processes
 TAEASS402A Assess competence
 TAEASS403A Participate in assessment validation

Laboratory operations

MSL904001A Perform standard calibration

Production support

FPPPRV320A Co-ordinate and direct clothing changes
 MEM18011C Shut down and isolate machines/equipment

MSACMC411A	Lead a competitive manufacturing team
MSACMS400A	Implement a competitive manufacturing system
MSACMS401A	Ensure process improvements are sustained
MSACMT220A	Apply quick changeover procedures
MSACMT240A	Apply 5S procedures in a manufacturing environment
MSACMT250A	Monitor process capability
MSACMT432A	Analyse manual handling processes
MSACMT440A	Lead 5S in a manufacturing environment
MSACMT451A	Mistake proof a production process

Turbine operations

UEPOPS341A Shut down a steam turbine

UEPOPS411A Run up a steam turbine

Group I: SUPPORT ELECTIVES**Unit Code Unit Name****Numeracy**

FPPNUM320A	Measure and calculate routine workplace data
FPPNUM430A	Calculate and analyse production and financial performance
MSACMT452A	Apply statistics to processes in manufacturing

OHS

FPPOHS320A Maintain OHS processes

FPPOHS420A Manage OHS processes

Quality

FPPQAS420A	Co-ordinate in-process quality assurance
MSACMT251A	Apply quality standards
MSAPMSUP400A	Develop and monitor quality systems

Sustainability

FPPSUS210A	Apply sustainable work practices/policies
MSACMT270A	Use sustainable energy practices
MSACMT271A	Use sustainable environmental practices
MSAENV472B	Implement and monitor environmentally sustainable work practices

FPP50110 Diploma of Pulp and Paper Process Management

Modification History

Not Applicable

Description

Not Applicable

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> • Communicate effectively with others when collecting, analysing and presenting workplace data and information • Communicate outcomes of problem solutions to team and appropriate personnel • Read complex text
Teamwork	<ul style="list-style-type: none"> • Assemble team for analysis • Lead and manage team processes • Refer problems to appropriate group or department
Problem-solving	<ul style="list-style-type: none"> • Devise appropriate action and solutions to typical presentation and communication problems • Promptly report and/or rectify any identified problems that may arise when collecting, analysing and presenting workplace data and information in accordance with regulatory requirements and workplace procedures • Rectify problems within level of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> • Identify causes and effects of faults and corrective action on associated processes • Implement contingency plans if required • Modify activities depending on differing operational contingencies, risk situations and environments
Planning and organising	<ul style="list-style-type: none"> • Develop action plan including contingencies • Identify and organise resources to implement action plan • Organise and present processed information in a logical manner
Self-management	<ul style="list-style-type: none"> • Demonstrate leadership • Interpret and follow operational instructions and prioritise work • Maintain situational awareness in work area
Learning	<ul style="list-style-type: none"> • Assess available types of problem solving activities/methodologies and determine most appropriate, such as e-learning tools • Assist others to identify and resolve operational problems in the workplace

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

Technology

- Assist team members where required
- Identify and use required communication and presentation technology
- Solve systemic problems in the pulp and paper industry, which typically involves complex integrated equipment and continuous operations
- Use electronic and other control systems to control equipment and processes as required

Packaging Rules

Qualification Notes

Total number of units = 12

6 Core units *plus*

6 Elective units from the list below, at least 4 of which must be recommended for packaging at AQF5 or higher. These units may include up to 3 relevant units recommended for packaging at AQF5 from an endorsed Training Package or State/Territory accredited course

Elective units must be relevant to the work outcome sought, industry requirements and the qualification level

CORE UNITS

Unit Code Unit Name

FPPNUM430A	Calculate and analyse production and financial performance
FPPOHS420A	Manage OHS processes
FPPPLN420A	Plan a complex activity
FPPQAS430A	Oversee quality assurance process
FPPSUS510A	Develop workplace policy and procedures for sustainability
BSBWOR501B	Manage personal work priorities and professional development

ELECTIVE UNITS

Unit Code Unit Name

BSBADM502B	Manage meetings
BSBAUD501B	Initiate a quality audit
BSBFIM501A	Manage budgets and financial plans
BSBLED501A	Develop a workplace learning environment
BSBMGT502B	Manage people performance
BSBMGT507A	Manage environmental performance
BSBMGT515A	Manage operational plan
BSBMGT608C	Manage innovation and continuous improvement
BSBPMG510A	Manage projects
BSBWOR502B	Ensure team effectiveness
BSBWRK506A	Coordinate research and analysis

MSACMT671A	Develop and manage sustainable energy practices
TAEASS401A	Plan and organise assessment
TAEASS402A	Assess competence
TAEASS403A	Participate in assessment validation
TAETAS501A	Undertake organisational training needs analysis
TLIE607D	Collect, analyse and present workplace data and information
FPICOT6205A	Prepare an enterprise carbon management report
FPICOR6201A	Manage sustainability in the workplace
FPICOT5208A	Build and maintain community relationships
FPICOT5207A	Implement sustainability in the workplace
FPICOT6201A	Manage community engagement

FPPCPP210A Monitor and control coated paper processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control coated paper processes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control coated paper processes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and maintain process
- monitor and maintain product, and
- record and report product and process performance data

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying coated paper processes

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and maintain process	1.1.Process is monitored and maintained within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2.Production requirements are checked at start of shift to plan the day's activities as required 1.3.Operational status is confirmed by inspection, observation and other information 1.4.Process supplies are maintained to production requirements 1.5.Process is monitored to ensure coating system operations are within specification 1.6.Process levels are monitored and maintained 1.7.Operator level preventative maintenance schedules are carried out as required 1.8.Routine process and system variations from specification are identified, rectified and/or reported
2. Monitor and maintain product	2.1.Product is monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2.Product is monitored and maintained to quality requirements 2.3.Routine visual observations and assessments are conducted on product and systems operations 2.4.Test samples are taken and results interpreted and recorded as required 2.5.Systems operations adjustments are made to rectify out-of-specification product
3. Record and report product and process performance data	3.1.Product and process performance data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2.Production data is interpreted and entered into recording system 3.3.Problems or variations with the process or product are communicated to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling coated paper processes
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Monitors, analyses and interprets data
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Takes samples, conducts tests and interprets and records results if required
- Uses measuring equipment as required
- Maintains a clear and hazard free plant work area
- Operates high risk load shifting equipment as required
- Maintains quality specifications
- Inspects and maintains equipment and systems to specifications
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to coated paper processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Safe handling of materials and chemicals
- Quality requirements
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of coated paper processes, system layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Effect of process adjustments during monitoring and operation
- Application of high risk load shifting equipment, as required

Required knowledge

- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control coated paper processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling coated paper processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in coated paper processes

Access to the full range of equipment involved in integrated continuous manufacturing of coated paper processes in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Coated paper processes may include:

- tail feed systems
- chemical and material batching
- laminating and coating
- splicing
- clay plant operation
- calender
- pre-reeler operations
- super calendering
- monitoring systems
- rewinding
- drying systems
- internal unloading
- combine rollers
- testing

Materials and supplies may include:

- chemicals and polymers
- power
- water
- additives
- steam
- labels
- felts
- equipment
- gas
- accessories (parts)
- air
- base paper

Equipment may include:

- coater
- splicer
- pre-reelers
- calender
- super-calender
- parent rolls and reels
- cranes
- pigment
- coating makedown plant
- starch cooker
- slitter
- computer systems
- electronic screens and alarms
- process control systems

RANGE STATEMENT

- analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the coated paper process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- Material Safety Data Sheets (MSDS)
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- product specifications and schedules
- maintenance logs
- job sheets
- site agreements
- safety instructions
- process and instrument diagrams
- machine manuals
- troubleshooting guides
- incidents reports

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

RANGE STATEMENT

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operator support personnel
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPCPP320A Prepare and start up coated paper processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up coated paper processes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up coated paper processes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup
- co-ordinate startup operations, and
- establish and stabilise production and quality processes

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying coated paper processes

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	1.1. Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production plan is interpreted 1.3. Grade specifications and limits are confirmed and communicated to relevant personnel 1.4. Process requirements are determined 1.5. Process supplies are confirmed available for production 1.6. Chemical and material requirements are determined
2. Inspect and prepare systems for startup	2.1. Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Isolations (if any) are removed 2.3. Pre-startup checks on equipment (e.g. coater and supply systems) are completed 2.4. Electrical power and process supplies are confirmed as available for production 2.5. Chemical/material delivery system is prepared for operation 2.6. Operational settings are made and confirmed within specification 2.7. Production ready status is confirmed with relevant personnel 2.8. Monitoring devices/systems are checked and confirmed operational 2.9. Faults are identified and rectified as required
3. Co-ordinate startup operations	3.1. Startup operations are co-ordinated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Equipment startups are co-ordinated for production 3.3. System functions are co-ordinated and confirmed by monitoring plant, equipment and control system/display monitors 3.4. Process operation status is communicated to relevant personnel

ELEMENT	PERFORMANCE CRITERIA
4. Establish and stabilise production and quality processes	<p>3.5. Production startup details are logged, recorded or filed</p> <p>4.1. Production and quality processes are established and stabilised within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2. Processes are monitored and adjusted to rectify variations from specification</p> <p>4.3. Adjustments/modifications are made to stabilise coating quality within specification</p> <p>4.4. Samples are taken as required to ensure product quality requirements are met</p> <p>4.5. Product tests are verified as within specification, where applicable</p> <p>4.6. Process operation, production and quality data is recorded as required</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up coated paper processes
- Communicates operational requirements clearly to relevant personnel
- Reads and interprets required documentation, procedures and reports
- Prepares written information and data to support groups and teams
- Accesses, navigates and enters computer-based information
- Monitors, analyses and interprets data
- Interprets instruments, gauges and data recording equipment
- Interprets control systems and display monitors in accordance with SOP and other specifications
- Responds to control systems and display alarms in accordance with SOP
- Confirms production ready status with team members and relevant personnel
- Identifies and actions problems within level of responsibility
- Responds to faults of process flow-through systems if required
- Responds to faults of plant if required

REQUIRED SKILLS AND KNOWLEDGE

- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Takes samples, conducts tests and interprets and records results if required
- Uses measuring equipment as required
- Calculates performance measures
- Determines coating production requirements (e.g. sheet, coating chemicals)
- Conducts checks to ensure availability of sheet, coating chemicals and electrical power
- Conducts checks to ensure space availability for coated sheet where applicable
- Ensures isolations are removed according to SOP
- Conducts pre-startup checks of plant and equipment including instrumentation
- Inputs operational settings (e.g. set points) in preparation for startup in accordance with SOP
- Activates and confirms operation of coating system according to SOP
- Operates high risk load shifting equipment as required
- Makes process control adjustments to stabilise production and obtain product quality
- Conducts routine maintenance checks
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required
-

Required knowledge

- Procedures, regulations and legislative requirements relevant to coated paper processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Information provided on the production specification sheet
- Navigation of computer control system displays
- Relationships within the coating area members and with the area's suppliers and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and effect of operational equipment faults
- Working knowledge of coated paper processes, system layout and associated services sufficient to carry out startup activities within level of responsibility
- Sampling and testing process for plant and system operations and process monitoring - purpose, standards and procedures as per site agreements
- Purpose of each of the steps in the preparation of the coating system for production

REQUIRED SKILLS AND KNOWLEDGE

- Purpose of each component of the coating system
- Purpose and location of the coating chemical supply system
- Critical control points of the preparation for startup procedure
- Purpose of the process controls and how changes affect the production variables
- Critical control points of the startup procedure
- Critical control points of the monitoring process during startup
- Awareness of high risk load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control coated paper processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up coated paper processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in coated paper processes

Access to the full range of equipment involved in

EVIDENCE GUIDE

integrated continuous manufacturing of coated paper processes in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

RANGE STATEMENT

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Coated paper processes may include:

- tail feed systems
- chemical and material batching
- laminating and coating
- splicing
- clay plant operation
- calender
- pre-reeler operations
- super calendering
- monitoring systems
- rewinding
- drying systems
- internal unloading
- combine rollers
- testing

Materials and supplies may include:

- chemicals and polymers
- power
- water
- additives
- steam
- labels
- felts
- equipment
- gas

RANGE STATEMENT

- Equipment may include:
- accessories (parts)
 - air
 - base paper
 - coater
 - splicer
 - pre-reelers
 - crimpers
 - calender
 - super-calender
 - parent rolls and reels
 - cranes
 - pigment
 - coating makedown plant
 - starch cooker
 - slitter
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully, automated, semi-automated, manually operated plant and equipment appropriate to the coated paper process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - enterprise policies and procedures
 - Material Safety Data Sheets (MSDS)
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - product specifications and schedules

RANGE STATEMENT

- maintenance logs
- job sheets
- site agreements
- safety instructions
- process and instrument diagrams
- machine manuals
- troubleshooting guides
- incidents reports

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operator support personnel
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

RANGE STATEMENT

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPCPP330A Co-ordinate the shutdown of coated paper processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate the shutdown of coated paper processes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate the shutdown of coated paper processes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- implement planned shutdown procedures
- assess the cause and effect of an unplanned shutdown, and
- record and report shutdown data

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or troubleshooting and rectifying coated paper processes

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Implement planned shutdown procedures	1.1. Planned shutdown procedures are implemented within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Planned shutdown is established from work area instructions or maintenance schedules 1.3. Process supplies shutdown procedures are followed as required 1.4. Plant or system shutdown is managed in accordance with relevant procedures 1.5. Isolation and lock out requirements are implemented 1.6. Plant integrity and personnel safety is ensured 1.7. Shutdown information is communicated to relevant personnel as required 1.8. Plant and equipment is washed and cleaned for restart
2. Assess the cause and effect of an unplanned shutdown	2.1. Cause and effect of an unplanned shutdown is assessed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Abnormal operating conditions are identified by analysis of technical and operational information 2.3. Effects of abnormal conditions are determined to enable appropriate action to be taken 2.4. Source of shutdown cause is located to ensure rectification 2.5. Appropriate personnel are notified when abnormal operating conditions prevail 2.6. Safety issues are identified
3. Record and report shutdown data	3.1. Shutdown data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Assessment and evaluation of causes and corrective actions undertaken are recorded as required 3.3. Relevant information is communicated to appropriate personnel in accordance with operational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating the shutdown of coated paper processes
- Reads and interprets required documentation, procedures and reports
- Prepares written information and data to support groups and teams
- Accesses, navigates and enters computer-based information
- Monitors, analyses and interprets data
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety, quality and productivity
- Co-ordinates and plans shutdown activity
- Implements personnel protection and plant security priorities according to SOP
- Operates high risk load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to coated paper processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of coated paper processes, system layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Effects of shutdowns to the rest of the systems
- Types, causes and effects of coated paper processes
- Processes and procedures for plant shutdowns and unplanned shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure

REQUIRED SKILLS AND KNOWLEDGE

- safety quality and productivity
- Plant and machinery functions and operations
- Emergency procedures and responses
- Application of high risk load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control coated paper processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating the shutdown of coated paper processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in coated paper processes

Access to the full range of equipment involved in integrated continuous manufacturing of coated paper processes in a pulp or paper mill is required

EVIDENCE GUIDE

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill

RANGE STATEMENT

- and waste water reduction
- environmentally safe waste disposal
 - consideration of resource utilisation, including fibre efficiency
 - minimising delays
 - chemical recovery maximisation
 - meeting key performance indicators
 - line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Coated paper processes may include:
- tail feed systems
 - chemical and material batching
 - laminating and coating
 - splicing
 - clay plant operation
 - calender
 - pre-reeler operations
 - super calendering
 - monitoring systems
 - rewinding
 - drying systems
 - internal unloading
 - combine rollers
 - testing
- Materials and supplies may include:
- chemicals and polymers
 - power
 - water
 - additives
 - steam
 - labels
 - felts
 - equipment
 - gas
 - accessories (parts)
 - air
 - base paper

RANGE STATEMENT

Equipment may include:

- coater
- splicer
- pre-reelers
- crimpers
- calender
- super-calender
- parent rolls and reels
- cranes
- pigment
- coating makedown plant
- starch cooker
- slitter
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to the coated paper process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk licensing requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- Material Safety Data Sheets (MSDS)
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- product specifications and schedules
- maintenance logs
- job sheets
- site agreements

RANGE STATEMENT

- safety instructions
 - process and instrument diagrams
 - machine manuals
 - troubleshooting guides
 - incidents reports
- Actions may include:
- process adjustments
 - reporting to authorised personnel
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operator support personnel
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell

RANGE STATEMENT

- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPCPP440A Troubleshoot and rectify coated paper processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify coated paper processes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify coated paper processes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and diagnose causes of process variation, plant or equipment faults
- rectify process variation, plant and equipment faults
- identify and rectify product quality faults, and
- record and report troubleshooting activities

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or shutting down coated paper processes

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and diagnose causes of process variation, plant or equipment faults	1.1. Causes of process variation, plant or equipment faults are identified and diagnosed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Visual assessments and machine alarm systems are interpreted to determine fault type and location 1.3. Routine physical inspections of plant and processes are made to identify faults 1.4. Cause and source of process variation, plant or equipment faults is identified and located using appropriate techniques 1.5. Relevant historical data is accessed and analysed to confirm diagnosis as required 1.6. Problems are communicated to relevant personnel
2. Rectify process variation, plant and equipment faults	2.1. Process variation, plant and equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Emergency stop or shutdown, isolation and lockout procedures are initiated prior to fault rectification 2.3. Faulty equipment or instrumentation is isolated and repaired or replaced 2.4. Corrective operational adjustments and maintenance requirements are implemented 2.5. Restoration to normal operation is achieved and communicated to relevant personnel
3. Identify and rectify product quality faults	3.1. Product quality faults are identified and rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product faults or variations are identified by observation, systematic sampling and testing 3.3. Out-of-specification product is managed 3.4. Sampling for a range of tests is undertaken 3.5. Required tests are conducted 3.6. Test results are interpreted and operations are adjusted to correct variations
4. Record and report	4.1. Troubleshooting activities are recorded and reported

ELEMENT	PERFORMANCE CRITERIA
troubleshooting activities	<p>within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2. Variations from specification and machine operation faults are documented</p> <p>4.3. Assessment and evaluation of causes of deviation, and corrective action undertaken is recorded as required</p> <p>4.4. Relevant information is communicated to appropriate personnel</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying coated paper processes
- Reads and interprets required documentation, procedures and reports
- Prepares written information for a range of audiences
- Makes recommendations for further action
- Accesses, navigates and enters computer-based information
- Monitors, analyses and interprets data
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Responds to emergencies or unplanned shutdowns in accordance with SOP

REQUIRED SKILLS AND KNOWLEDGE

- Implements isolations and lockouts according to SOP
- Identifies and implements operational procedures
- Maintains plant operation and production with minimal interruptions
- Maintains grade specification and quality or initiates appropriate action to rectify
- Identifies and implements test requirements
- Takes samples, conducts tests and interprets and records results if required
- Uses measuring equipment as required
- Operates high risk load shifting equipment as required
- Uses technology to assist work performance
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to coated paper processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of coated paper processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to coated paper plant and processes
 - relationships between coated paper processes and associated services
- An appropriate range of troubleshooting methods
- Impact of inappropriate responses
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Cause and effect of test results and actions
- Product grade and process adjustment procedures
- Application of high risk load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control coated paper processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying coated paper processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in coated paper processes

Access to the full range of equipment involved in integrated continuous manufacturing of coated paper processes in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

Coated paper processes may include:

- machine/process production rate
- tail feed systems
- chemical and material batching
- laminating and coating
- splicing
- clay plant operation
- calender
- pre-reeler operations
- super calendering
- monitoring systems
- rewinding
- drying systems
- internal unloading
- combine rollers
- testing

Materials and supplies may include:

- chemicals and polymers
- power
- water
- additives
- steam
- labels
- felts
- equipment
- gas
- accessories (parts)
- air
- base paper

Equipment may include:

- coater
- splicer
- pre-reelers
- crimpers
- calender
- super-calender
- parent rolls and reels
- cranes
- pigment
- coating makedown plant
- starch cooker
- slitter
- computer systems

RANGE STATEMENT

- electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the coated paper process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - enterprise policies and procedures
 - Material Safety Data Sheets (MSDS)
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - product specifications and schedules
 - maintenance logs
 - job sheets
 - site agreements
 - safety instructions
 - process and instrument diagrams
 - machine manuals
 - troubleshooting guides
 - incidents reports
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

RANGE STATEMENT

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operator support personnel
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPCPR210A Prepare chemical products

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare chemical products in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to persons who prepare chemical products in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- establish chemical requirements
- inspect and prepare chemical systems
- start, monitor and maintain chemical system, and
- implement shutdown procedures

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish chemical requirements	<p>1.1. Chemical requirements are established within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Chemical requirements are determined</p>
2. Inspect and prepare chemical systems	<p>2.1. Chemical systems are inspected and prepared within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Isolations are removed</p> <p>2.3. Visual check of delivery systems are conducted</p> <p>2.4. Delivery systems are confirmed as operational using electronic control systems</p> <p>2.5. Additives are mixed to specifications as required</p> <p>2.6. Quality checks are conducted on chemical product as required</p>
3. Start, monitor and maintain chemical system	<p>3.1. Chemical system is started, monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2. Process tests are conducted to ensure product quality</p> <p>3.3. Process adjustments are made to ensure product quality</p> <p>3.4. Documentation is maintained</p> <p>3.5. Details of hazardous situations are documented as required</p> <p>3.6. Faulty equipment is identified and repaired or replaced</p>
4. Implement shutdown procedures	<p>4.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2. Shutdown is planned, organised and conducted as required</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing chemical products
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Communicates information clearly to internal and external contacts
- Collects and collates information for decision-making
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and other recording equipment
- Identifies and monitors process control points
- Plans work within standard procedures
- Prepares chemical system
- Maintains a clear and hazard free work area
- Conducts tests, interprets and records results if required
- Uses measuring equipment
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to preparing chemical products including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Cause and affects of operational equipment faults and appropriate rectification action
- Chemical system layout
- Chemical preparation processes and systems

REQUIRED SKILLS AND KNOWLEDGE

- Plant and machinery functions and operations
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Types, causes and effects of shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Emergency procedures and responses
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing chemical products

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in preparing chemical products

Access to the full range of equipment involved in preparing chemical products in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials and supplies may include:

- water
- chemicals

Equipment may include:

- chemical production equipment
- process control and monitoring equipment, input and extract data
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to preparing chemical products

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)

Documentation, procedures and

- SOP
- quality procedures

RANGE STATEMENT

reports may include:

- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operational support personnel
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

RANGE STATEMENT

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPCSK310A Operate process control equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to operate process control equipment in the pulp and paper industry
General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to persons who operate process control equipment in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations
This unit generally applies to those who:

- access and navigate control system
- monitor and control process, and
- respond to process variations and problems

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Access and navigate control system	<p>1.1. Accessing and navigating control system is completed within OHS regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Control systems are identified and interpreted</p> <p>1.3. Control systems are accessed as required</p> <p>1.4. Control systems are navigated to meet job requirements</p>
2. Monitor and control process	<p>2.1. Monitoring and controlling process is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Control screen/s are monitored to check process status</p> <p>2.3. Equipment adjustments are made using process control systems</p>
3. Respond to process variations and problems	<p>3.1. Response to process variations and problems is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2. Process variations are identified</p> <p>3.3. Equipment adjustments are made in response to process variations and alarms</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in operating process control equipment
- Reads and interprets required documentation, procedures and reports
- Accesses and navigates control systems

REQUIRED SKILLS AND KNOWLEDGE

- Makes process adjustments using the control system
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and other recording equipment
- Understands the effect of adjustments on part or product specifications
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to operating process control equipment including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem solving techniques consistent with level of responsibility
- Materials, equipment and process sufficient to recognise material and equipment conditions which may lead to out of specification production
- Risk management using the hierarchy of controls applied to the operation of computer controlled machines/processes
- Approved hazard control, safety procedures and the use of PPE in relation to handling materials, equipment operation and cleanup
- Symbols used in process controls
- Computer-controlled machine operating procedures
- Typical equipment malfunctions
- Procedures for reporting equipment malfunctions
- Procedures for reporting product or part deviations
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and Evidence should be relevant to the work. It should

EVIDENCE GUIDE

evidence required to demonstrate competency in this unit

satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in operating process control equipment

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating process control equipment

Access to the full range of equipment involved in operating process control equipment in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

EVIDENCE GUIDE

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Procedures

All operations are performed in accordance with procedures including:

- all relevant workplace procedures
- work instructions
- temporary instructions
- relevant industry and government codes and standards

Typical hazards may include:

- noise
- debris
- chemicals
- heavy loads
- hazardous materials
- moving equipment
- equipment operations
- nip points
- suspended loads
- high risk equipment
- electrical equipment failure
- fire

Problems:

means 'apply known solutions to a limited range of predictable problems'

- typical process and product problems may include:
 - machine electrical or mechanical

RANGE STATEMENT

- malfunction
 - process deviation/variation
 - out of specification product
 - appropriate action for problems outside of area of responsibility may be reported to an appropriate person
 - appropriate action for solving problems within area of responsibility includes asking questions and seeking assistance from appropriate persons/sources
- Key variables to be monitored may include:
- speed
 - output rate
 - product integrity and general conformance to specification
- Equipment may include:
- computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to process control equipment
- Processes may include:
- primary resources processes
 - waste paper handling processes
 - waste paper operations processes
 - pulping processes
 - chemical recovery systems
 - stock preparation systems
 - wet end processes
 - dry end processes
 - finishing and converting processes
 - warehousing and dispatch processes
 - water services processes
 - coated paper processes
 - steam generation processes
 - electrical power generation processes
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - HAZCHEM
 - dangerous goods
 - external licensing requirements (for example, EPA, water authorities, local councils)

RANGE STATEMENT

- Electronic control systems may include:
 - internal environmental control standards
 - Digital Control System (DCS)
 - touch screens
 - robotics
- Actions may include:
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
 - internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
 - traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
 - written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration

RANGE STATEMENT

- temperature

Unit Sector(s)

Not Applicable

FPPDEO210A Monitor and control dry end operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to monitor and control dry end operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who monitor and control dry end operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control process and systems
- control product quality
- conduct product grade change, and
- record process and system information

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying dry end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and control process and systems	1.1.Process systems are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2.Production requirements are checked at start of shift to plan the day's activities 1.3.Process supplies are maintained and controlled to meet production requirements 1.4.Systems are monitored to ensure dry end operations are within parameters 1.5.Process and system variations from operating parameters are identified, rectified and/or reported 1.6.Operator level preventative maintenance is undertaken as required 1.7.Changes to machine operations are communicated to relevant personnel 1.8.Sheet breaks are detected and sheet re-established as required
2. Control product quality	2.1.Product quality is controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2.Sheet is monitored and controlled to quality requirements 2.3.Product and system operations are confirmed by inspection, observations and other information 2.4.Adjustments are made to control quality requirements 2.5.Test samples are taken and test results interpreted and recorded as required 2.6.Changes to product requirements are communicated to relevant personnel
3. Conduct product grade change	3.1.Product grade change is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2.Grade change requirements are determined and planned 3.3.Dry end systems are shut down as required

ELEMENT	PERFORMANCE CRITERIA
4. Record process and system information	3.4.Process setups/adjustments are implemented to meet new grade requirements 3.5.Equipment startups are coordinated and implemented as per new grade requirements 3.6.Grade change is coordinated and implemented on the run as required 4.1.Process and system information is recorded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2.System and production information is recorded 4.3.Problems or variations in performance are recorded and communicated

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling dry end operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Identifies and monitors process control points
- Maintains situational awareness in work area
- Interprets and plans grade change requirement
- Co-ordinates and conducts grade changes
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- Procedures, regulations and legislative requirements relevant to dry end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Working knowledge of dry end plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment as required
- Materials and supplies and how they influence paper properties
- Grade change processes, coordination and requirements
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the dry end, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements

EVIDENCE GUIDE

- applicable aspects of the range statement
- practical workplace demonstration of skills in the monitor and control of dry end operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dry end operations

Access to the full range of equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Systems and functions involved in dry end operations may include:

- drying processes
- reeling operations
- chemical additive system
- monitoring systems
- sheet treatment processes
- tail feed systems
- broke system
- on-line coating systems
- calendering systems
- vacuum systems
- laser systems
- slitter systems
- sheet transfer systems
- accumulator
- cleaning showers

RANGE STATEMENT

Materials, supplies and stock may include:

- chemicals
- compressed air
- water
- electricity
- gas
- steam
- additives
- machine clothing
- ropes and belts

Equipment may include:

- scales
- tape turner
- hand and power tools
- computer systems
- electronic screens and alarms
- process control systems
- computer systems
- electronic screens and alarms
- process control systems
- fully automated, semi-automated, manually operated plant and equipment appropriate to the dry end process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Hazards and risks may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:	<ul style="list-style-type: none"> • dust • OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk (and non-high risk) load shifting licensing requirements as applicable
Documentation, procedures and reports may include:	<ul style="list-style-type: none"> • SOP • site policy and procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • confined space requirements • vendor documentation • reference manual • grade specifications • quality procedures • oil or chemical spills and disposal guidelines • plant isolation documentation • housekeeping • safe work documentation e.g. plant clearance, job safety analysis, permit systems • maintenance logs • job sheets • operating log • production instructions • Materials Safety Data Sheets (MSDS) • process and instrument diagrams
Maintenance may include:	<ul style="list-style-type: none"> • operator level maintenance as per site agreements • operator maintenance schedules • maintenance systems • maintenance suppliers • pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
Actions may include:	<ul style="list-style-type: none"> • process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include	interaction with:

RANGE STATEMENT

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPDEO320A Prepare and start up dry end operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up dry end operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up dry end operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup
- start up dry end operations and
- establish startup at dry end

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying dry end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	1.1. Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Planned production requirements are confirmed and communicated to relevant personnel 1.3. Availability of machine supplies are confirmed
2. Inspect and prepare systems for startup	2.1. Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Isolations are removed as required 2.3. Operational settings are made and confirmed 2.4. Pre-startup checks are completed 2.5. Monitoring devices and systems are checked and confirmed operational 2.6. Faults are identified and rectified as required 2.7. Confirmation for startup is communicated to relevant personnel
3. Start up dry end operations	3.1. Dry end operations are started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Equipment startups are co-ordinated and implemented 3.3. System functions are confirmed by monitoring plant, equipment and control system and display monitors 3.4. Process operation is communicated to relevant personnel 3.5. Production startup details are documented as required
4. Establish startup at dry end	4.1. Startup is established at dry end within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Sheet is established and stabilised through dry end sections to parent reel 4.3. Systems are monitored and adjusted to rectify variations from specifications

ELEMENT**PERFORMANCE CRITERIA**

4.4. Adjustments or modifications are made to stabilise sheet quality within specification

4.5. System operation, production and quality data is recorded as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up dry end operations
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Plans and organises startup
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to dry end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of dry end plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and

REQUIRED SKILLS AND KNOWLEDGE

application to make appropriate adjustments that control the dry end, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the preparation and starting up of dry end operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dry end operations

Access to the full range of equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

- Systems and functions involved in dry end operations may include:
- drying processes
 - reeling operations
 - chemical additive system
 - monitoring systems
 - sheet treatment processes
 - tail feed systems
 - broke system
 - on-line coating systems
 - calendering systems
 - vacuum systems
 - laser systems
 - slitter systems
 - sheet transfer systems
 - accumulator
 - cleaning showers
- Materials, supplies and stock may include:
- chemicals
 - compressed air
 - water
 - electricity
 - gas
 - steam
 - additives
 - machine clothing
 - ropes and belts
- Equipment may include:
- scales
 - tape turner
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the dry end process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics

RANGE STATEMENT

RANGE STATEMENT

Hazards and risks may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

RANGE STATEMENT

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings, data entry
- verbal e.g. radio skills, telephone, face to face,

RANGE STATEMENT

- handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPDEO330A Co-ordinate and implement dry end shutdown

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and implement dry end shutdowns in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and implement dry end shutdown in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess causes and effects of shutdowns
- implement shutdown procedures, and
- record and report shutdown information at the dry end

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or troubleshooting and rectifying dry end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess causes and effects of shutdown	1.1. Causes and effects of shutdown are assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Unplanned shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Planned shutdown is implemented 2.3. Unplanned shutdown is responded to and rectified 2.4. Isolation requirements are implemented as required 2.5. Shutdown information is communicated to relevant personnel as required
3. Record and report shutdown information	3.1. Recording and reporting is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and implementing

REQUIRED SKILLS AND KNOWLEDGE

shutdowns of dry end operations

- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to dry end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Effects of shutdowns on the rest of the systems
- Types, causes and effects of dry end shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Working knowledge of dry end plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the dry end, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and implementing dry end shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dry end operations

Access to the full range of equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

- Systems and functions involved in dry end operations may include:
- drying processes
 - reeling operations
 - chemical additive system
 - monitoring systems
 - sheet treatment processes
 - tail feed systems
 - broke system
 - on-line coating systems
 - calendering systems
 - vacuum systems
 - laser systems
 - slitter systems
 - sheet transfer systems
 - accumulator
 - cleaning showers
- Materials, supplies and stock may include:
- chemicals
 - compressed air
 - water
 - electricity
 - gas
 - steam
 - additives
 - machine clothing
 - ropes and belts
- Equipment may include:
- scales
 - tape turner
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the dry end process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics

RANGE STATEMENT

Hazards and risks may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions

RANGE STATEMENT

- Actions may include:
- Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstructions
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover

RANGE STATEMENT

- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPDEO440A Troubleshoot and rectify dry end systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify dry end systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable, and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify dry end systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse causes of systems and quality faults
- rectify systems and equipment faults
- rectify product quality faults, and
- record and report process performance and product quality data

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or shutting down dry end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of systems and quality faults	1.1. Causes of systems and quality faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Alarm systems and observations are interpreted to determine fault type and location 1.3. Routine inspections of plant and processes are made to identify faults 1.4. Sampling and testing results are interpreted to identify variations from operating parameters 1.5. Cause and source of problem is identified and located 1.6. Relevant sources of information are accessed and interpreted to assist analysis 1.7. Information is communicated to relevant personnel
2. Rectify systems and equipment faults	2.1. Systems and equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is shut down and isolated prior to fault rectification if required 2.3. Faulty equipment is by-passed where the process allows 2.4. Faulty equipment is repaired or replaced as required 2.5. Corrective adjustments are made to equipment 2.6. Operator level maintenance is undertaken as required 2.7. Restoration to normal operation is verified and communicated to relevant personnel
3. Rectify product quality faults	3.1. Product quality faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product quality faults or variations are identified by observation, inspection and testing 3.3. Samples for a range of tests are taken 3.4. Test results are interpreted and processes are adjusted to correct variations from specification
4. Record and report process performance	4.1. Process performance and product quality data is recorded and reported within OHS regulations,

ELEMENT	PERFORMANCE CRITERIA
and product quality data	environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from specifications are documented 4.3. Performance variations are documented 4.4. Corrective actions are recorded 4.5. Out-of-specification product is dealt with 4.6. Information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying dry end systems
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Assists others to identify and resolve operational problems in the workplace
- Takes samples, conducts tests, interprets and records results
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Uses measuring equipment as required
- Maintains situational awareness in work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity

REQUIRED SKILLS AND KNOWLEDGE

- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to dry end systems and operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of dry end plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to dry end plant and processes
 - relationships between dry end plant, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Mill maintenance system as it applies to dry end plant and processes
- The application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the dry end, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying dry end systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dry end operations

Access to the full range of equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

- Systems and functions involved in dry end operations may include:
- drying processes
 - reeling operations
 - chemical additive system
 - monitoring systems
 - sheet treatment processes
 - tail feed systems
 - broke system
 - on-line coating systems
 - calendering systems
 - vacuum systems
 - laser systems
 - slitter systems
 - sheet transfer systems
 - accumulator
 - cleaning showers
- Materials, supplies and stock may include:
- chemicals
 - compressed air
 - water
 - electricity
 - gas
 - steam
 - additives
 - machine clothing
 - ropes and belts
- Equipment may include:
- scales
 - tape turner
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the dry end process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics

RANGE STATEMENT

- Hazards and risks may include:
- steam and/or gas leaks
 - fires
 - nip points
 - compressed air
 - hot surfaces
 - electrical
 - entanglement
 - slip hazards/falls
 - energy
 - pressures
 - chemicals
 - fumes
 - confined spaces
 - dust
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - confined space requirements
 - vendor documentation
 - reference manual
 - grade specifications
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - housekeeping
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - maintenance logs
 - job sheets
 - operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams

RANGE STATEMENT

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may

- written e.g. log books, emails, incident and

RANGE STATEMENT

include:

- other reports, run sheets data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPENV210A Identify and monitor environmental discharges/emissions

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to identify and monitor environmental discharges/emissions in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to operators who identify and monitor environmental discharges/emissions in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor environmental discharges/emissions, and
- respond to abnormal discharges/emissions

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor environmental discharges/emissions	1.1. Environmental discharges/emissions are monitored within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Discharge/emission levels and consequences of exceeding allowable discharge/emission levels are recognised 1.3. Discharge/emission levels are monitored and measured 1.4. Discharges and emissions are kept within targeted limits 1.5. Waste is removed from site where appropriate
2. Respond to abnormal environmental discharges/emissions	2.1. Abnormal environmental discharges/emissions are responded to within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Abnormal discharges and emissions are reported to appropriate personnel 2.3. Containment procedures are applied

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in identifying and monitoring environmental discharges/emissions
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and other recording equipment
- Identifies unacceptable environmental discharges

REQUIRED SKILLS AND KNOWLEDGE

- Conducts work practices within regulatory requirements
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to identifying and monitoring environmental discharges/emissions including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Environmental consequences of unacceptable discharges
- Company policy related to environmental monitoring and control
- Role and responsibility of regulatory bodies
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in identifying and monitoring environmental discharges/emissions

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in identifying and monitoring environmental discharges/emissions

Access to the full range of equipment involved in identifying and monitoring environmental discharges/emissions in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled

EVIDENCE GUIDE

personnel

- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Indicative functions may include:

- monitoring of all physical sensors and/or instrumentation
- compliance with licensing arrangements

Equipment may include:

- containment equipment
- personal protective equipment
- monitoring equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation

RANGE STATEMENT

- fully automated, semi-automated, manually operated plant and equipment appropriate to environmental monitoring
- Emissions/discharges may include:
- noise
 - light
 - odour
 - gas
 - smoke
 - vapour
 - liquid and solids
 - particulates
 - fumes
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - HAZCHEM
 - dangerous goods
 - external licensing requirements (for example, Environment Protection Authority [EPA], water authorities, local councils)
 - internal environmental control standards
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - enterprise policies and procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members

RANGE STATEMENT

- production/service co-ordinators
- maintenance services
- operational support personnel
- operational management
- statutory authorities

Situational awareness may include: awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPENV320A Monitor and control environmental hazards

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control environmental hazards in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control environmental hazards in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify environmental hazards
- respond to environmental hazards
- liaise with internal and external bodies, and
- participate in the investigation of environmental incidents

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify environmental hazards	1.1. Identification of environmental hazards is completed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Environmental hazards are identified 1.3. Location and severity of hazard is assessed and communicated to appropriate personnel 1.4. Cause and/or source of environmental hazard is diagnosed
2. Respond to environmental hazards	2.1. Environmental hazards are responded to within OHS regulations, environmental and safe working requirements and/or practices, SOP, and housekeeping requirements 2.2. Environmental alarms are activated where appropriate 2.3. Environmental hazards are measured and controlled 2.4. Hazardous incidents are documented and reported
3. Liaise with internal and external bodies	3.1. Internal and external bodies are liaised with in accordance with OHS regulations, environmental and safe working requirements and/or practices, SOP, and housekeeping requirements 3.2. Relevant licensing authorities/bodies are identified and notified 3.3. Status of the environmental hazard is monitored and communicated with appropriate personnel on an on-going basis
4. Participate in the investigation of environmental incident	4.1. Participation in investigation of environmental incidents is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Documentation and reports are completed 4.3. Investigations are undertaken 4.4. Findings are documented and reported

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling environmental hazards
- Communicates with appropriate internal and external bodies
- Reads and interprets required documentation, procedures and reports
- Takes emergency action associated with environmental hazard
- Interprets instruments, gauges and other recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies and investigates reasons for environmental hazard
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to monitoring and controlling environmental hazards including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Company procedures for identifying, recording and reporting environmental hazards
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling environmental hazards

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in monitoring and controlling environmental hazards

Access to the full range of equipment involved in monitoring and controlling environmental hazards in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Indicative functions may include:

- monitoring of all physical sensors and instrumentation
- compliance with licensing arrangements

Equipment may include

- containment equipment
- personal protective equipment
- monitoring equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate environmental monitoring

Emissions/discharges may include:

- noise
- light
- odour
- gas

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:	<ul style="list-style-type: none"> • smoke • vapour • liquid and solids • particulates • fumes • OHS and environmental requirements (local, state and commonwealth) • HAZCHEM • dangerous goods handling requirements • external licensing requirements (for example, Environmental Protection Authority (EPA), water authorities, local councils) • internal environmental control standards
Documentation, procedures and reports may include:	<ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures • oil or chemical spills and disposal guidelines • plant isolation documentation • safe work documentation e.g. plant clearance, job safety analysis, permit systems
Electronic control systems may include:	<ul style="list-style-type: none"> • Digital Control System (DCS) • touch screens • robotics
Actions may include:	<ul style="list-style-type: none"> • process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include	<p>interaction with:</p> <ul style="list-style-type: none"> • internal/external customers and suppliers • team members • production/service co-ordinators • maintenance services • operational support personnel • operational management • statutory authorities
Situational awareness may include	<p>awareness of:</p>

RANGE STATEMENT

- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPEPG210A Monitor and control power generation system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control power generation systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control power generation systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- confirm operational status
- monitor and control power generation and ancillary plant operation, and
- record and document power generation and ancillary plant performance

to meet safety, quality and productivity requirements

It does not include managing power generation system startups, shutdowns, or troubleshooting and rectifying power generation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Confirm operational status	1.1. Operational status is confirmed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan the day's activities as required 1.3. Continuing process supplies are maintained 1.4. Power generation processes are confirmed to be within operational specifications 1.5. Turbine performance is recorded in the operational log 1.6. Operational status is communicated to relevant personnel
2. Monitor and control power generation and ancillary plant operation	2.1. Power generation and ancillary plant operation is monitored and controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Operational status is confirmed by inspection, observations and other information 2.3. Process supplies are monitored as required 2.4. Turbine pressures, temperatures and flows are measured as required 2.5. Turbine and generation control adjustments are made to maintain operation within specification 2.6. Power output demand and distribution systems operation is monitored and maintained to meet client requirements
3. Record and document power generation and ancillary plant performance	3.1. Power generation and ancillary plant performance is recorded and documented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Pressures, temperatures and flows are documented as required 3.3. Operating log is maintained 3.4. Maintenance requirements are identified and documented as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling power generation systems
- Reads and interprets required documentation, procedures and reports, within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Responds to monitoring and warning devices
- Identifies and actions problems within level of responsibility
- Monitors and controls process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Conducts routine checks
- Uses tools and equipment
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to power generation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of power generation plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Electrical isolation procedures
- Principles of operation of transformers and circuit protection systems within level of responsibility
- Power distribution systems
- AC/DC generation principles
- Output control and regulation principles

REQUIRED SKILLS AND KNOWLEDGE

- Power factor characteristics and effects
- Effect of steam quality on turbine operation
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control power generation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling power generation systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in power generation system operations

Access to the full range of equipment involved in integrated continuous manufacturing for power generation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- machine/process production rate

RANGE STATEMENT

Management and operation of power generation may include:

- availability of required supplies
- electricity generation
- regulation and distribution systems

Materials and supplies may include:

- water
- air
- steam
- electricity
- gas

Equipment may include:

- boilers
- high and low voltage transformers
- steam or gas turbine driven alternators
- switchboards
- water systems and auxiliary plant
- circuit breakers
- AC/DC generation and distribution systems
- protective equipment
- measuring and recording equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to the power generation process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk licensing requirements
- operator endorsement requirements
- local power authority rules and regulations

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines

RANGE STATEMENT

- plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - operational logs and reports
 - maintenance logs
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service coordinators
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover

RANGE STATEMENT

- Sensory information may include:
- non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPEPG320A Manage a power generation system startup

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to manage a power generation system startup in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who manage a power generation system startup in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- conduct local inspections and pre-operational safety checks, and
- initiate startup procedures

to meet safety, quality and productivity requirements

It does not include co-ordinating power generation system shutdowns, monitoring and controlling power generation systems or troubleshooting and rectifying power generation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|--|
| 1. Conduct local inspections and pre-operational safety checks | <ul style="list-style-type: none"> 1.1. Local inspections and pre-operational safety checks are conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Plant status is confirmed by inspection, observations and other information 1.3. Potential work area hazards are identified, reported, controlled and measures are employed to contain hazards 1.4. Work requirements are determined in conjunction with power authorities 1.5. Operational requirements are established 1.6. Sequencing for plant startup to suit current circumstances is determined 1.7. Operational maintenance requirements are undertaken as required |
| 2. Initiate startup procedures | <ul style="list-style-type: none"> 2.1. Startup procedures are initiated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Sequence for plant startup is commenced 2.3. Generation system start is co-ordinated with distribution and ancillary systems and brought on-line 2.4. System or plant is observed for correct operational response 2.5. Deviations from required operating conditions are detected and corrective action undertaken to rectify 2.6. Routine documentation is maintained and logs completed 2.7. Startup information is recorded and reported as required |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in managing a power generation system startup
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Prepares written information and enters data to support groups and teams
- Communicates with customers and other relevant personnel
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Determines systems faults, causes and effects
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Conducts appropriate adjustments to maintain operation at required levels
- Maintains a clean and hazard free workplace
- Uses measuring equipment as required
- Uses tools and equipment
- Conducts routine checks
- Operates high risk equipment as required
- Carries out operator level maintenance as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to power generation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of power generation plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Effect of steam quality on turbine operation
- Pre-start limitations and run-up limitations
- AC/DC generation principles
- Output control and regulation principles
- Power factor characteristics and effects

REQUIRED SKILLS AND KNOWLEDGE

- Electrical isolation procedures
- Principles of operation of transformers and circuit protection systems within level of responsibility
- Operational tolerances of the turbine system and the effect of operating outside these tolerances
- Power distribution systems
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control power generation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in managing a power generation system startup

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in power generation system operations

Access to the full range of equipment involved in integrated continuous manufacturing of power generation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Management and operation of power generation may include:

- availability of required supplies
- electricity generation
- regulation and distribution systems

Materials and supplies may include:

- water
- air
- steam
- electricity
- gas

Equipment may include:

- boilers
- high and low voltage transformers
- steam or gas turbine driven alternators
- switchboards
- water systems and auxiliary plant
- circuit breakers
- AC/DC generation and distribution systems
- protective equipment
- measuring and recording equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to the power generation process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk licensing requirements
- operator endorsement requirements
- local power authority rules and regulations

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- operational logs and reports
- maintenance logs
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

RANGE STATEMENT

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service coordinators
- maintenance services
- operational management
- statutory authorities

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPEPG330A Co-ordinate power generation system shutdown

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to co-ordinate a power generation system shutdown in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who co-ordinate a power generation system shutdown in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess cause and effects of shutdown
- implement shutdown procedures, and
- record and report shutdown data

to meet safety, quality and productivity requirements

It does not include managing a power generation system startup, monitoring and controlling power generation systems or troubleshooting and rectifying power generation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess cause and effects of shutdown	1.1. Cause and effects of shutdown is assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Faulty plant is isolated/contained where possible to allow continued production as required 1.6. Unplanned shutdown is communicated to appropriate personnel and power authorities as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Process supplies shutdown procedures are followed as required 2.3. Planned shutdown is implemented 2.4. Unplanned shutdown is responded to and rectified 2.5. Isolation requirements are implemented as required 2.6. Inspections are undertaken as required
3. Record and report shutdown data	3.1. Shutdown data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel and power authorities as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating a power generation system shutdown
- Reads and interprets required documentation, procedures and reports within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Responds to monitoring and warning devices
- Communicates with customers and other relevant personnel
- Identifies and actions problems within level of responsibility
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Uses tools and equipment
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to power generation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Types, causes and effects of power generation plant shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Working knowledge of power generation plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility

REQUIRED SKILLS AND KNOWLEDGE

- Electrical isolation procedures
- Principles of transformers and circuit protection systems within level of responsibility
- Power factor characteristics and effects
- Power systems testing and test procedures
- Power distribution systems
- AC/DC generation principles
- Output control and regulation principles
- Effect of steam quality on turbine operation
- Operational tolerances of the turbine system and the effect of operating outside these tolerances
- Application of high risk equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control power generation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating a power generation system shutdown

Context of and specific resources

A workplace assessment must be used to assess:

EVIDENCE GUIDE

for assessment

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in power generation system operations

Access to the full range of equipment involved in integrated continuous manufacturing for power generation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised**

RANGE STATEMENT

wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Management and operation of power generation may include:

- availability of required supplies
- electricity generation
- regulation and distribution systems

Materials and supplies may include:

- water
- air
- steam
- electricity
- gas

Equipment may include:

- boilers
- high and low voltage transformers
- steam or gas turbine driven alternators
- switchboards
- water systems and auxiliary plant
- circuit breakers
- AC/DC generation and distribution systems
- protective equipment

RANGE STATEMENT

- measuring and recording equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the power generation process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - appropriately endorsed operator licensing
 - local power authority rules and regulations
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - enterprise policies and procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - operational logs and reports
 - maintenance logs
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service coordinators
 - maintenance services

RANGE STATEMENT

- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPEPG440A Troubleshoot and rectify power generation system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify power generation systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to persons who troubleshoot and rectify power generation systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and diagnose causes of faults
- rectify faults
- rectify power quality and distribution faults, and
- record and report operational data

to meet safety, quality and productivity requirements

It does not include managing a power generation system startup, shutdown or monitoring and controlling power generation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and diagnose causes of faults	1.1. Causes of faults are identified and diagnosed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Abnormal plant conditions and system alarms are interpreted to determine fault type and location 1.3. Physical inspections of plant and processes are made to identify faults 1.4. Cause and source of fault is identified and located 1.5. Relevant historical data is accessed/referred to, to confirm diagnosis 1.6. Diagnoses are communicated to relevant personnel
2. Rectify faults	2.1. Faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Shutdown and isolation procedures are implemented as required 2.3. Faulty equipment is repaired or replaced 2.4. Adjustments to process and systems are made to restore normal operations 2.5. Restoration to normal operation is verified and communicated to relevant personnel
3. Rectify power quality and distribution faults	3.1. Power quality and distribution faults are rectified within OHS, SOP, environmental and safe working requirements and practices 3.2. Power quality faults/variations are identified by observation, systematic sampling and testing 3.3. Measurements are taken and tests conducted according to established enterprise procedures and SOP 3.4. Power quality is adjusted whilst generator is on-line to correct variations from specification
4. Record and report operational data	4.1. Operational data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from required production output and systems operation faults are documented

ELEMENT**PERFORMANCE CRITERIA**

4.3. Troubleshooting process and corrective actions are recorded

4.4. Relevant information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying power generation systems
- Reads and interprets required documentation, procedures and reports within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Perform tests and interprets and records results as required
- Uses measuring equipment as required
- Identifies and responds appropriately to shutdown causes
- Initiates and applies isolations and lockouts as required
- Maintains required power outputs consistently to specification
- Conducts routine checking procedures during plant and systems operation
- Uses tools and equipment
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maximise safety,

REQUIRED SKILLS AND KNOWLEDGE

quality and productivity

- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to power generation system operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of power generation system, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to power generation plant and processes
 - relationships between power generation system, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing processes for plant and system operations, and process steam supply monitoring - purpose, standards and procedures as per site agreements
- Types, causes and effects of power generation plant shutdowns
- Effect of steam quality on turbine operation
- Operational tolerances of the turbine system and the effect of operating outside these tolerances
- AC/DC generation principles
- Output control and regulation principles
- Power factor characteristics, effects and correction techniques
- Electrical isolation procedures
- Principles of operation of transformers and circuit protection systems
- Power distribution systems
- Application of high risk equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control power generation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying power generation systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in power generation system operations

Access to the full range of equipment involved in integrated continuous manufacturing for power generation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Management and operation of power generation may include:
- machine/process production rate
 - availability of required supplies
 - electricity generation
 - regulation and distribution systems
- Materials and supplies may include:
- water
 - air
 - steam
 - electricity
 - gas
- Equipment may include:
- boilers
 - high and low voltage transformers
 - steam or gas turbine driven alternators
 - switchboards
 - water systems and auxiliary plant
 - circuit breakers
 - AC/DC generation and distribution systems
 - protective equipment
 - measuring and recording equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the power generation process
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - operator endorsement requirements
 - local power authority rules and regulations

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- operational logs and reports
- maintenance logs
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service coordinators
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry

RANGE STATEMENT

- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPFCO210A Monitor, control and shutdown finishing and converting operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit describes the outcomes required to monitor, control and shut down finishing and converting operations in the pulp and paper industry</p> <p>General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement</p> <p>Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit</p>
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Application of the Unit

Application of the unit	<p>This unit applies to operators who monitor, control and shut down finishing and converting operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations</p> <p>This unit generally applies to those who:</p> <ul style="list-style-type: none">• operate and monitor processes and systems• control product quality and production• conduct equipment shutdown, and• record process and system information <p>to meet safety, quality and productivity requirements</p> <p>It does not include preparing and starting up finishing and converting operations or troubleshooting and rectifying finishing and converting systems</p>
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Operate and monitor processes and systems	1.1. Processes and systems are operated and monitored within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan day's activities as required 1.3. Planned production requirements are confirmed and communicated to relevant personnel 1.4. Operations and systems are monitored and maintained within process parameters (range of variables) consistent with production requirements 1.5. Monitoring displays and devices are interpreted and responded to 1.6. Setup for product change is undertaken as required
2. Control product quality and production	2.1. Product quality and production is controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Product is monitored and controlled to production and quality requirements 2.3. Routine observations and assessments are conducted on product and system operations 2.4. Adjustments are made to control production and quality requirements 2.5. Test results are interpreted and recorded as required 2.6. Changes to product requirements are communicated to relevant personnel
3. Conduct equipment shutdown	3.1. Equipment shutdown is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown plan is communicated with relevant personnel 3.3. Shutdown procedures are carried out 3.4. Cause of unplanned shutdown is identified and rectified 3.5. Shutdown details are recorded as required
4. Record process and system information	4.1. Recording process and system information is completed within OHS regulations, environmental

ELEMENT

PERFORMANCE CRITERIA

- and safe working requirements/practices, SOP, and housekeeping requirements
- 4.2. System and production information is recorded
- 4.3. Problems or variations in performance are recorded and communicated

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring, controlling and shutting down finishing and converting operations
- Reads and interprets required documentation, procedures and reports
- Interprets production requirements and work instructions
- Interprets instruments, gauges and data recording equipment
- Prepares written information and enters data to support groups and teams
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Implements isolation or lockout procedures
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Uses hand tools
- Uses cleaning equipment
- Perform tests and interprets and record results if required
- Uses measuring equipment as required
- Operates plant and equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

- Procedures, regulations and legislative requirements relevant to finishing and converting operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of finishing and converting operations, processes, layout and associated services sufficient to monitor, control and shut down finishing and converting operations within level of responsibility
- Types, causes and effects of finishing and converting plant shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Equipment setup procedures and adjustments
- Product types and quality requirements
- Designated areas for waste
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control finishing and converting operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring, controlling and shutting down finishing and converting operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in finishing and converting operations

Access to the full range of equipment involved in integrated continuous manufacturing of finishing and converting operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be

EVIDENCE GUIDE

culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the

RANGE STATEMENT

- Finishing and converting processes may include:
- machine or process is making product
 - machine/process production rate
 - winding and re-winding
 - decorating
 - lotionising
 - calendering
 - water marking
 - perforating
 - slitting and cutting
 - embossing
 - laminating
 - folding
 - printing
 - bonding
 - core making
 - wrapping and packing
- Materials and supplies may include:
- parent roll or reel
 - lotion
 - shrink and stretch wraps
 - pallets
 - sheet paper
 - labelling and stencilling
 - wrap paper
 - customer rolls
 - boxes
 - polythene wrap
 - glues
 - cartons
 - strapping
 - printing inks
 - shippers
 - reams
 - signs and labels
 - core board
 - scent
 - rolls
- Equipment and systems may include:
- separate servo controlled motors and drives
 - electronic sensors and proximity system
 - light curtains
 - category three plus guarding

RANGE STATEMENT

- program formatting
 - programmable production configurations
 - pre-set
 - modifiable
 - quick change parts e.g. snap lock
 - reels and winding equipment
 - wrapping and packing equipment
 - guillotine, knives and cutting equipment
 - conveying systems
 - materials handling equipment
 - flexographic printing equipment used for decorating
 - overhead cranes
 - testing and measuring equipment
 - roll grab attachments
 - warehousing equipment
 - warehousing control systems
 - electronic, pneumatic and hydraulic process controls
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to finishing and converting operations
- Auxiliary systems may include:
- air
 - lubrication
 - vacuum
 - dust extraction system
- Electronic control systems may include:
- portable control device
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - enterprise policies, procedures and guidelines
 - environmental sustainability

RANGE STATEMENT

requirements/practices

- plant manufacturing operating manuals
- production schedules
- production plans
- production specifications
- quality certification e.g. ISO
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- reference documents on theory of operation of processes and systems
- vendor manuals
- checklists
- Material Safety Data Sheets (MSDS)

Maintenance may include:

- operator level maintenance as per site agreement
- operator maintenance schedules
- maintenance supplies
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Quality checks and tests may include:

- roll density
- core slippage
- damaged packaging
- reel hardness
- core size
- colour matching
- bulk
- core strength
- sheet size
- roll appearance
- print quality
- cut quality

RANGE STATEMENT

- MD&CD tensile
- core scenting
- packaged product
- stretch
- roll size
- perforations
- product identification
- warehousing records

Required action in the event of a missing or faulty component may include:

- operator level maintenance
- involvement of maintenance personnel
- replacement of component
- communication with appropriate personnel

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- warehousing personnel
- internal/external customers and suppliers
- maintenance services
- team members
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell

RANGE STATEMENT

- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPFCO320A Prepare and start up finishing and converting operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up finishing and converting operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up finishing and converting operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- establish production requirements for startup
- conduct setup for product change, and
- start up finishing and converting operations

to meet safety, quality and productivity requirements

It does not include monitoring, controlling and shut down of finishing and converting operations or troubleshooting and rectifying finishing and converting systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish production requirements for startup	1.1. Production requirements for start up are established within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production plan is interpreted 1.3. Product specification is checked 1.4. Product supplies are confirmed available for production
2. Conduct setup for product change	2.1. Setup for product change is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-setup checks are conducted on required components 2.3. Required action is taken if a component is missing or faulty 2.4. Isolation procedures are followed as required 2.5. Communication and coordination with team members during product change occurs as required 2.6. Components and accessories are loaded, installed and adjusted for setup as required 2.7. All isolations are confirmed as signed off and lifted where applicable 2.8. Initial quality checks and component adjustments are made 2.9. Required documentation is completed
3. Start up finishing and converting operations	3.1. Finishing and converting operations are started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Quality assurance checks are conducted from startup to ensure processes are maintained 3.3. Process adjustments from start up are carried out as required 3.4. Faults are identified and rectified as required 3.5. Confirmation for start up is communicated to relevant personnel as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up finishing and converting operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets production requirements and work instructions
- Interprets instruments, gauges and data recording equipment
- Prepares written information and enters data to support groups and teams
- Identifies and actions problems within level of responsibility
- Identifies and checks process control points
- Maintains situational awareness in the work area
- Implements isolation or lockout procedures
- Uses hand tools
- Uses cleaning equipment
- Operates plant and equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Uses testing and measuring equipment required for setup as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to finishing and converting operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of finishing and converting operations, processes, layout and associated services sufficient to prepare finishing and/or converting systems for production within level of responsibility
- Equipment setup procedures and adjustments
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Product types and quality requirements
- Designated areas for waste
- Application of high risk (and non-high risk) load shifting equipment, as required

REQUIRED SKILLS AND KNOWLEDGE

- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control finishing and converting operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up finishing and converting operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in finishing and converting operations

Access to the full range of equipment involved in integrated continuous manufacturing of finishing and converting operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job

EVIDENCE GUIDE

- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency

RANGE STATEMENT

- minimising delays
 - chemical recovery maximisation
 - meeting key performance indicators
 - line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Finishing and converting processes may include:
- winding and re-winding
 - decorating
 - lotionising
 - calendering
 - water marking
 - perforating
 - slitting and cutting
 - embossing
 - laminating
 - folding
 - printing
 - bonding
 - core making
 - wrapping and packing
- Materials and supplies may include:
- parent roll or reel
 - lotion
 - shrink and stretch wraps
 - pallets
 - sheet paper
 - labelling and stencilling
 - wrap paper
 - customer rolls
 - boxes
 - polythene wrap
 - glues
 - cartons
 - strapping
 - printing inks
 - shippers

RANGE STATEMENT

- Equipment and systems may include:
- reams
 - signs and labels
 - core board
 - scent
 - rolls
 - separate servo controlled motors and drives
 - electronic sensors and proximity system
 - light curtains
 - category three plus guarding
 - program formatting
 - programmable production configurations
 - pre-set
 - modifiable
 - quick change parts e.g. snap lock
 - reels and winding equipment
 - wrapping and packing equipment
 - guillotine, knives and cutting equipment
 - conveying systems
 - materials handling equipment
 - flexographic printing equipment used for decorating
 - overhead cranes
 - testing and measuring equipment
 - roll grab attachments
 - warehousing equipment
 - warehousing control systems
 - electronic, pneumatic and hydraulic process controls
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to finishing and converting operations
- Auxiliary systems may include:
- air
 - lubrication
 - vacuum
 - dust extraction system
- Electronic control systems may
- portable control device

RANGE STATEMENT

include:

- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- enterprise policies, procedures and guidelines
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- production schedules
- production plans
- production specifications
- quality certification e.g. ISO
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- reference documents on theory of operation of processes and systems
- vendor manuals
- checklists
- Material Safety Data Sheets (MSDS)

Quality checks and tests may include:

- roll density
- core slippage
- damaged packaging
- reel hardness
- core size
- colour matching
- bulk
- core strength
- sheet size
- roll appearance
- print quality
- cut quality
- MD&CD tensile
- core scenting
- packaged product

RANGE STATEMENT

- stretch
 - roll size
 - perforations
 - product identification
 - warehousing records
- Required action in the event of a missing or faulty component may include:
- operator level maintenance
 - involvement of maintenance personnel
 - replacement of component
 - communication with appropriate personnel
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- warehousing personnel
 - internal/external customers and suppliers
 - maintenance services
 - team members
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings

RANGE STATEMENT

- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPFCO340A Troubleshoot and rectify finishing and converting systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify finishing and converting systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify finishing and converting systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse causes of system and quality faults
- rectify system faults
- rectify or re-work product with quality faults, and
- record and report system performance and product quality data

to meet safety, quality and productivity requirements

It does not include preparing and starting up, monitoring, controlling, or shutting down finishing and converting operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of system and quality faults	1.1. Causes of system and quality faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Control system readouts are monitored to identify process variations 1.3. Trends and warning devices are interpreted to determine fault type and location 1.4. Quality checks are interpreted to identify variations from specifications or schedule 1.5. Cause and source of problem is identified and located 1.6. Relevant sources of information are accessed and interpreted to assist analysis
2. Rectify system faults	2.1. System faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is shut down and isolation procedures are implemented prior to fault rectification if required 2.3. Faulty equipment is identified, repaired or replaced 2.4. Faulty equipment is by-passed as required 2.5. Corrective adjustments are made and operator level maintenance requirements are undertaken 2.6. Restoration of machine or system to normal operation is verified and communicated to relevant personnel
3. Rectify or re-work product with quality faults	3.1. Product with quality faults is rectified or reworked within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product quality faults or variations are identified by observation, systematic sampling, testing or quality checks 3.3. Quality checks are conducted 3.4. Quality tests are undertaken and results interpreted as required 3.5. Process adjustments are made as required 3.6. Out-of-specification product is actioned as required

ELEMENT	PERFORMANCE CRITERIA
4. Record and report system performance and product quality data	<p>4.1. System performance and product quality data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2. Variations from process specifications are recorded</p> <p>4.3. Actions undertaken to troubleshoot and rectify faults are recorded</p> <p>4.4. Indications of performance variation are documented</p> <p>4.5. Relevant information is communicated to appropriate personnel</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying finishing and converting systems
- Reads and interprets required documentation, procedures and reports
- Operates communications equipment
- Interprets instruments, gauges and data recording equipment
- Interprets troubleshooting guides, operational data, trend analysis and test results
- Accesses, navigates and enters computer-based information
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area

REQUIRED SKILLS AND KNOWLEDGE

- Implements isolation and lockout procedures as required
- Operates required measuring and testing devices
- Perform tests and interprets and record results if required
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to finishing and converting system operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of finishing and converting system, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to finishing and converting plant and processes
 - relationships between finishing and converting system, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Operator level maintenance requirements
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control finishing and converting systems within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying finishing and converting operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in finishing and converting operations

Access to the full range of equipment involved in integrated continuous manufacturing of finishing and converting operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be

EVIDENCE GUIDE

culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the

RANGE STATEMENT

machine or process is making product

- machine/process production rate

Finishing and converting processes may include:

- winding and re-winding
- decorating
- lotionising
- calendering
- water marking
- perforating
- slitting and cutting
- embossing
- laminating
- folding
- printing
- bonding
- core making
- wrapping and packing

Materials and supplies may include:

- parent roll or reel
- lotion
- shrink and stretch wraps
- pallets
- sheet paper
- labelling and stencilling
- wrap paper
- customer rolls
- boxes
- polythene wrap
- glues
- cartons
- strapping
- printing inks
- shippers
- reams
- signs and labels
- core board
- scent
- rolls

RANGE STATEMENT

Equipment and systems may include:

- separate servo controlled motors and drives
- electronic sensors and proximity system
- light curtains
- category three plus guarding
- program formatting
 - programmable production configurations
 - pre-set
 - modifiable
- quick change parts e.g. snap lock
- reels and winding equipment
- wrapping and packing equipment
- guillotine, knives and cutting equipment
- conveying systems
- materials handling equipment
- flexographic printing equipment used for decorating
- overhead cranes
- testing and measuring equipment
- roll grab attachments
- warehousing equipment
- warehousing control systems
- electronic, pneumatic and hydraulic process controls
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to finishing and converting operations

Auxiliary systems may include:

- air
- lubrication
- vacuum
- dust extraction system

Electronic control systems may include:

- portable control device
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high

RANGE STATEMENT

- Documentation, procedures and reports may include:
- risk) load shifting licensing requirements
 - SOP
 - enterprise policies, procedures and guidelines
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - production schedules
 - production plans
 - production specifications
 - quality certification e.g. ISO
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - reference documents on theory of operation of processes and systems
 - vendor manuals
 - checklists
 - Material Safety Data Sheets (MSDS)
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance supplies
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Quality checks and tests may include:
- roll density
 - core slippage
 - damaged packaging
 - reel hardness
 - core size
 - colour matching
 - bulk
 - core strength
 - sheet size
 - roll appearance
 - print quality
 - cut quality

RANGE STATEMENT

- MD&CD tensiles
- core scenting
- packaged product
- stretch
- roll size
- perforations
- product identification
- warehousing records

RANGE STATEMENT

Required action in the event of a missing or faulty component may include:

- operator level maintenance
- involvement of maintenance personnel
- replacement of component
- communication with appropriate personnel

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- warehousing personnel
- internal/external customers and suppliers
- maintenance services
- team members
- operational management
- statutory authorities

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

RANGE STATEMENT

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings, data entry
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPHWP250A Store and dispatch waste paper

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to store and dispatch waste paper in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who store and dispatch waste paper in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- analyse order to identify work requirements
- prepare goods for dispatch
- dispatch product, and
- finalise documentation

to meet safety, quality and productivity requirements

It does not include receiving or unloading waste paper

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse order to identify work requirements	1.1. Order is analysed to identify work requirements within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Order requirements are interpreted 1.3. Required schedules for dispatch are identified 1.4. Products from order are identified 1.5. Workplace and product knowledge is used to plan sequence of work 1.6. Appropriate materials handling equipment is selected within timeframe for the dispatch
2. Prepare goods for dispatch	2.1. Goods are prepared for dispatch within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Goods for dispatch are selected, checking against product knowledge, labels and other identification systems 2.3. Products are sorted, assembled and placed in storage or dispatch zones, in accordance with schedule 2.4. Orders are placed in storage or dispatch zones in accordance with schedule 2.5. Order is checked against dispatch schedule and order form
3. Dispatch product	3.1. Product is dispatched within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Load requirements are communicated to carrier 3.3. Products are loaded for dispatch using appropriate materials handling equipment 3.4. Damaged product are identified and processed during loading 3.5. Checks are made with the carrier to confirm the load has been secured
4. Finalise documentation	4.1. Finalisation of documentation is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements

ELEMENT**PERFORMANCE CRITERIA**

- 4.2. Final check of documentation is completed
- 4.3. Security seals are attached as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in storing and dispatching waste paper
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Maintains inventory systems with accurate information
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Selects product
- Packs or wraps product to customer requirements
- Operates packaging, wrapping and labelling equipment
- Operates and maintains materials handling equipment
- Uses measuring equipment as required
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to storage and dispatch of waste paper operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of storage and dispatch area processes, layout and associated services sufficient to carry out storage and dispatch of waste paper within level of responsibility
- Warehouse organisation and workflow

REQUIRED SKILLS AND KNOWLEDGE

- Freight carrying and load restraint requirements
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application that control storage and dispatch operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in storing and dispatching waste paper

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in storing and dispatching waste paper

Access to the full range of equipment involved in storage and dispatch operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Materials and supplies may include:

- waste paper
- blocks
- pallets
- loose
- reels
- product

Equipment may include:

- conveyor systems
- cranes
- sorting tables
- fork lift
- straddle truck
- trailer or tipper
- articulated loader
- side loader
- mobile crane or other materials
- handling equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to storage and dispatch of waste paper

Accessories may include:

- protective and high visibility safety clothing and equipment
- break down tools and equipment
- electronic communication equipment

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- weighbridge dockets
- work orders
- tally sheets
- truck delivery dockets
- invoices
- non-conformance reports
- test results and reports
- log sheets (production and equipment)
- equipment performance data and tonnage
- input or conversion
- stock inventory
- process and instrument diagrams
- operator level maintenance as per site agreement
- maintenance system
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Maintenance may include:

RANGE STATEMENT

- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Communications may include
- interaction with:
- internal/external suppliers and customers
 - maintenance services
 - team members
 - operational management
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPHWP260A Receive waste paper

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to receive waste paper in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who receive waste paper in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- check, weigh and record load data, and
- direct trucks for unloading

to meet safety, quality and productivity requirements

It does not include unloading waste paper or storing and dispatching waste paper

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Check, weigh and record load data	1.1. Waste paper is checked, weighed and load data is recorded within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Trucks delivering loads are identified, documents checked and load accepted 1.3. Load data, estimated weights or volumes are calculated and recorded 1.4. Non-conforming loads are handled 1.5. Confirmation of delivery record is obtained from truck driver
2. Direct trucks for unloading	2.1. Trucks are directed for unloading within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Trucks are directed to appropriate unloading area according to load grade 2.3. Yard personnel are notified of deliveries requiring unloading, as required 2.4. Truck movements in the yard are monitored

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in receiving waste paper
- Reads and interprets required documentation, procedures and reports
- Prepares brief written information
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required

REQUIRED SKILLS AND KNOWLEDGE

- Sorts and grades waste paper to specification
- Calculates weights and tables
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to receiving waste paper including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of waste paper receiving processes, layout and associated services sufficient to receive waste paper within level of responsibility
- Loading areas
- Logistics controls
- Paper types, specifications, characteristics and grade specifications
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application that control waste paper receiving practices, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in receiving waste paper

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in receiving waste paper

Access to the full range of equipment involved in receiving waste paper in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

RANGE STATEMENT

- Equipment may include:
- weighbridge
 - computer systems
 - electronic screens and alarms
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to receiving waste paper
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - electronic communication equipment
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - weighbridge dockets
 - work orders
 - tally sheets
 - truck delivery dockets
 - invoices
 - non-conformance reports
 - test results and reports
 - log sheets (production or equipment)
 - equipment performance data
 - tonnage
 - input and conversion
 - stock inventory
 - process and instrument diagrams
- Actions may include:
- process adjustments
 - reporting to authorised person

RANGE STATEMENT

- Situational awareness may include:

 - rectifying problem within level of responsibility
 - awareness of:
 - traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Communications may include

 - interaction with:
 - internal/external suppliers and customers
 - maintenance services
 - team members
 - operational management
- Sensory information may include:

 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:

 - written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPHWP270A Unload waste paper

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to unload waste paper in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting, licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who unload waste paper in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- unload waste paper
- grade, sort and stack waste paper, and
- store product

to meet safety, quality and productivity requirements

It does not include receiving waste paper or storing and dispatching waste paper

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Unload waste paper	1.1. Waste paper is unloaded within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Load or product documentation is received, interpreted and verified 1.3. Non-conforming loads are handled 1.4. Load and handling characteristics are identified 1.5. Mechanical handling equipment is selected and operated in accordance with load and handling characteristics
2. Grade, sort and stack waste paper	2.1. Waste paper is graded, sorted and stacked within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Waste paper is moved to appropriate stacking locations consistent with type, quality and stock rotation requirements 2.3. Stacks are constructed to provide stability and minimise problems 2.4. Provision for decks, storage bays and access for lifting equipment is made when storing
3. Store product	3.1. Product is stored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Load is carried, raised and set down safely 3.3. Load is stored in compliance with stock location requirements 3.4. Inventory records documentation is completed

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills

- Uses required forms of communication in unloading waste paper
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Stacks and stores waste paper efficiently and safely
- Handles non-conformance loads
- Minimises handling to meet loading, processing, and stock rotation requirements
- Delivers paper as required, to meet production requirements
- Uses approved manual handling techniques
- Maintains machinery
- Operates materials handling equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to unloading waste paper including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Emergency and evacuation procedures
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of waste paper unloading processes, layout and associated services sufficient to unload waste paper within level of responsibility
- Stacking procedures, implications and requirements
- Deck or storage bay requirements
- Load types, specifications and characteristics
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application that control waste paper unloading processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in unloading waste paper

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in unloading waste paper

Access to the full range of equipment involved in unloading waste paper in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

EVIDENCE GUIDE

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum

RANGE STATEMENT

- machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Materials and supplies may include:
- waste paper
 - blocks
 - pallets
 - loose
 - reels
 - product
- Equipment may include:
- conveyor systems
 - cranes
 - sorting tables
 - fork lift
 - straddle truck
 - trailer or tipper
 - articulated loader
 - side loader
 - mobile crane or other materials
 - handling equipment
 - hand and power tools
 - computer systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to unloading waste paper
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - break down tools and equipment
 - electronic communication equipment
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines

RANGE STATEMENT

- plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - weighbridge dockets
 - work orders
 - tally sheets
 - truck delivery dockets
 - invoices
 - non-conformance reports
 - test results and reports
 - log sheets (production or equipment)
 - equipment performance data
 - tonnage
 - input and conversion
 - stock inventory
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreement
 - maintenance systems
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Sampling or testing may include:
- sampling at process by operator to site specifications
 - visual assessment of load for unacceptable contaminants
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement

RANGE STATEMENT

Communications may include

interaction with:

- internal/external suppliers and customers
- maintenance services
- team members
- operational management

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPMHV210A Operate overhead crane

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to operate an overhead crane in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to people who operate overhead cranes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- plan work for the prevailing work conditions
- use controls and operating systems to manage the operation of the equipment
- locate load and identify load characteristics
- safely move load
- monitor and operate controls, and
- stop, shut down and secure equipment

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan work for the prevailing work conditions	1.1. Work for the prevailing work conditions is planned within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Traffic flow and work area conditions are constantly assessed and anticipated to allow safe operation to ensure no injury to personnel, or damage to equipment, loads or facilities 1.3. Characteristics of the load are taken into account to ensure that, where applicable, appropriate attachments/gear are used to move the load 1.4. Occurrences in the work area that may affect the safety and efficiency of operations are reported to appropriate personnel
2. Use controls and operating systems to manage the operation of the equipment	2.1. Controls and operating systems are used to manage operation of the equipment within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is prepared and appropriate attachments fitted (where applicable) 2.3. Equipment is started in accordance with manufacturers guidelines to bring to speed 2.4. Instruments and gauges are monitored during startup and operations to ensure that operation is within manufacturers specifications 2.5. Power is managed for efficiency of equipment movement and economy of equipment operations 2.6. Equipment operations are conducted within manufacturers specified torque range 2.7. Any faults or damage to equipment are immediately reported to the appropriate personnel
3. Locate load and identify load characteristics	3.1. Location of load and identification of load characteristics are completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Load is located and identified according to

ELEMENT	PERFORMANCE CRITERIA
	instructions
	3.3. Requirements for Safe Working Load (SWL) and Working Load Limit (WLL) of the gantry equipment are identified
	3.4. Load weight and dimensions are checked to ensure they fall within the capacity of the equipment
	3.5. Loading and unloading plans are followed to ensure efficiency and safety of operations
	3.6. Characteristics of the load are taken into account to ensure that appropriate loading and unloading procedures are followed
4. Safely move load	4.1. Load is moved safely within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	4.2. Equipment is operated and positioned using smooth and controlled movements
	4.3. Manoeuvres are within the limits of the equipment and in line with manufacturers specification
	4.4. Load is moved ensuring no injury to personnel or damage to equipment or cargo
	4.5. Continuous communication is maintained with personnel assisting the operator in load movement operations using appropriate communications technology and procedures
	4.6. In the event of a safety incident or emergency, the equipment is immediately stopped and workplace emergency procedures followed
	4.7. Safety incidents and emergencies are reported in accordance with workplace procedures and regulatory requirements
5. Monitor and operate controls	5.1. Controls are monitored and operated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	5.2. Equipment controls are monitored and operated in accordance with manufacturers operating instructions
	5.3. Control systems are understood and acted upon in accordance with manufacturers guidelines

ELEMENT	PERFORMANCE CRITERIA
6. Stop, shut down and secure equipment	<p>5.4. Control faults are identified and reported</p> <p>5.5. Hazards in the work area are identified and appropriate measures are adopted to control the risks</p> <p>6.1. Equipment is stopped, shut down and secured within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>6.2. Equipment is brought to a controlled halt and shut down without injury to personnel or damage to equipment, loads or facilities in accordance with manufacturers guidelines and workplace procedures</p> <p>6.3. Equipment is secured in accordance with manufacturers instructions and workplace procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication when operating an overhead crane
- Works collaboratively with others when shifting loads using gantry equipment
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and data recording equipment
- Receives, acknowledges and sends messages with appropriate communications equipment
- Starts up and shuts down overhead crane
- Moves standard and non-standard loads ensuring:
 - load is correctly slung
 - correct operation of crane
 - load is within crane limits, particularly where load measuring devices are fitted
- Schedules movements to maintain material flow in mill to required timing
- Identifies cargo, container and goods, coding, Australian Dangerous Goods (ADG) and International Maritime Dangerous Goods (IMDG) markings and where applicable

REQUIRED SKILLS AND KNOWLEDGE

- Interprets and follows operational instructions and prioritises work
- Estimates the size, shape and special requirements of loads
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to overhead crane operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Australian Standards, manufacturer's and enterprise requirements on crane operation
- Australian and international codes, regulations, licence/permit requirements relevant to the use of gantry equipment to shift loads
- Requirements for safe working load (SWL) and working load limit (WLL) of gantry equipment
- Relevant safety codes and emergency procedures
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Focus of operation of work systems, equipment, management and site operating systems for the use of gantry equipment to shift loads
- Types of gantry equipment used to shift loads including applications and procedures and precautions for their use
- Marking and numbering systems for cargo
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in operating an overhead crane

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating an overhead crane

Access to the full range of equipment involved in operating an overhead crane in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Overhead cranes and accessories may include:

- pedestrian or remote operated
- cabin operated
- crane attachments

Job accessories may include:

- safety clothing and equipment
- vehicle manuals
- vehicle tools
- job and vehicle records and writing equipment
- first aid kit
- breakdown gear

Range of loads and lifting procedures may include:

- standard mill loads
- non-standard mill loads requiring trial lifts

Hazards in the work area may include:

- chemicals
- dangerous or hazardous substances
- movements of equipment, goods, materials and vehicular
- traffic

RANGE STATEMENT

Personal protective equipment may include:

- gloves
- safety headwear and footwear
- safety glasses
- two-way radios
- protective clothing
- high visibility clothing

Range of equipment may include:

- various types of bridge and gantry cranes
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to overhead crane operation

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- relevant codes and regulations for the shifting of cargo/containers using gantry equipment
- Australian and international regulations and codes of practice for the handling of dangerous goods and hazardous substances e.g. Australian and International Dangerous Goods Codes
- relevant Australian Standards including AS1418 and AS2550
- workplace relations regulations
- workers compensation regulations

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- goods identification numbers and codes
- Australian and international codes of practice and regulations relevant to the shifting of loads using gantry equipment
- Australian and international regulations and

RANGE STATEMENT

- codes of practice for the handling and transport of dangerous goods and hazardous substances
- supplier and/or client instructions
 - dangerous goods declarations and Material Safety Data Sheets (MSDS)
 - award, enterprise bargaining agreement, other industrial arrangements
 - relevant Australian standards and certification requirements
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms,

RANGE STATEMENT

- Sensory information may include:
- observations
 - signage e.g. safety, access
 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPNUM210A Estimate and calculate basic data

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to estimate and calculate basic data in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to persons who estimate and calculate basic data in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- estimate, calculate and record basic workplace data
- use routine measuring equipment, and
- record data

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Estimate, calculate and record basic workplace data	1.1. Workplace data is estimated, calculated and recorded within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Calculations are used to meet process points and production requirements 1.3. Product characteristics and process points are measured and variations from standard is calculated 1.4. Addition, subtraction, multiplication and division are used for workplace calculations
2. Use routine measuring instruments	2.1. Routine measuring instruments are used within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Measuring instruments are selected and used to accurately measure equipment settings and product characteristics 2.3. Measuring instrument faults are identified and reported to ensure that they are available for subsequent use
3. Record data	3.1. Data is recorded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Results are recorded using standard methods as required 3.3. Incorrect recordings are identified and amended to ensure that faults are rectified

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

REQUIRED SKILLS AND KNOWLEDGE

- Uses required forms of communication when estimating and calculating basic data
- Records statistical data on standard forms
- Writes numbers accurately and legibly
- Records information accurately in company format
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies routine faults in measuring instruments
- Estimates measures using whole numbers and decimals
- Operates instruments to measure dimensions
- Calculates routine measures using arithmetic processes involving:
 - whole numbers
 - fractions
 - decimals
- Calculate results using whole numbers and/or fractions and decimals
- Verifies estimations by relevant calculations

Required knowledge

- Procedures, regulations and legislative requirements relevant to estimating and calculating basic data including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Purpose of measuring instruments
- Purpose of recording statistical data

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in estimating and calculating basic data

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in estimating and calculating basic data

Access to the full range of equipment involved in estimating and calculating basic data in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Arithmetic calculations may include:

- addition
- subtraction
- multiplication
- division
- percentages
- ratios and proportions
- volumes

Product characteristics may include:

- length
- weight
- capacity
- time
- temperature
- moisture

Estimates and calculations may be applied to:

- product characteristics e.g. weight, length, volume
- production tallies

RANGE STATEMENT

- Forms for recording information may include:

 - time
 - statistical process charts
 - production tally sheets
- Manual or electronic calculations may include:

 - percentages
 - proportions
 - ratio
 - results using decimals, simple fractions and whole numbers
- Productivity and efficiency measures may include:

 - delay
 - waste
 - speed
 - tonnage
 - through put
 - asset utilisation
 - machine efficiency
- Legislation, regulatory, licensing and certification requirements may include:

 - OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:

 - SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Actions may include:

 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:

 - internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities

RANGE STATEMENT

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPNUM320A Measure and calculate routine workplace data

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to measure and calculate routine workplace data in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who measure and calculate routine workplace data in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- use routine measuring instruments
- calculate routine workplace measures
- calculate performance measures, and
- record routine workplace data

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use routine measuring instruments	<ul style="list-style-type: none">1.1. Routine measuring instruments are used within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements1.2. Measuring instruments are selected and used to measure common workplace units1.3. Faults with measuring instruments are identified and reported
2. Calculate routine workplace measures	<ul style="list-style-type: none">2.1. Routine workplace measures are calculated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements2.2. Basic mathematical processes are used to calculate routine workplace measures of product characteristics2.3. Calculations are verified by using estimating techniques
3. Calculate performance measures	<ul style="list-style-type: none">3.1. Performance measures are calculated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements3.2. Percentages, ratios and proportions are calculated to derive information about workplace requirements and performance3.3. Deviations in performance are identified and measured to determine the extent of variations
4. Record routine workplace data	<ul style="list-style-type: none">4.1. Routine workplace data is recorded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements4.2. Results are recorded on standard graphs or charts4.3. Errors in recording information on charts are identified and rectified4.4. Graphs or charts are interpreted to identify trends and variations

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in measuring and calculating routine workplace data
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Sources and applies new ideas and techniques to address unfamiliar situations or resolve problems
- Identifies routine faults in measuring instruments
- Uses numeracy skills and mathematical concepts to solve workplace problems
- Selects and operates measuring instruments
- Uses and applies the principles and units of measurement
- Uses estimations processes
- Verifies calculations
- Achieves consistent levels of accuracy
- Interprets mathematical symbols and diagrams
- Presents mathematical data for use in the workplace

Required knowledge

- Procedures, regulations and legislative requirements relevant to measuring and calculating routine workplace data including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Purpose of graphs or charts
- Purpose of measuring instruments
- Relationship between different measurement scales

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in measuring and calculating routine workplace data

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in measuring and calculating routine workplace data

Access to the full range of equipment involved in measuring and calculating routine workplace data in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Measuring devices may include:

- scales
- vernier callipers
- meters
- gauges

Mathematical processes may include:

- addition
- subtraction
- multiplication
- division

Product characteristics may include:

- length
- weight
- capacity
- time
- temperature
- moisture

Manual or electronic calculations may include:

- percentages
- proportions

RANGE STATEMENT

- ratio
 - results using decimals, simple fractions and whole numbers percentages
- Performance measures may include:
- percentage
 - proportion
 - ratio
- Productivity and efficiency measures may include:
- delay
 - waste
 - speed
 - tonnage
 - through put
 - asset utilisation
 - machine efficiency
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include:
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry

RANGE STATEMENT

- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPNUM430A Calculate and analyse production and financial performance

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to calculate and analyse production and financial performance in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to persons who calculate and analyse production and financial performance in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- calculate and compare actual and budget performance
- prepare and analyse data, and
- calculate calibration adjustments

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Calculate and compare actual and budget performance	<p>1.1. Actual and budget performance is calculated and compared within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Costs are calculated and compared with standards or budgets to identify variance from planned performance</p> <p>1.3. Financial results are analysed to identify costs which require particular attention in improving financial performance</p>
2. Prepare and analyse data	<p>2.1. Data is prepared and analysed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Data is consolidated with standard reporting format to report performance and activity</p> <p>2.3. Time series data is interpreted from tables and graphs to identify performance trends</p>
3. Calculate calibration adjustments	<p>3.1. Calibration adjustments are calculated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2. Mathematical concepts associated with equipment calibration are understood and used to determine adjustment to equipment settings</p> <p>3.3. Calibration calculation is verified by checking the accuracy of the adjustment in the actual work performance</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in calculating and analysing production and

REQUIRED SKILLS AND KNOWLEDGE

financial performance

- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Determines variation of planned with actual outcomes
- Calculates yield, wastage and productivity
- Calculates variance of cost from budget
- Applies mathematical concepts to determine whether equipment settings require adjustments
- Verifies calibration calculation

Required knowledge

- Procedures, regulations and legislative requirements relevant to calculating and analysing production and financial performance including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Purpose of yield, wastage, productivity
- Variation of planned with actual outcomes
- Purpose of comparing cost with budget
- Purpose of the data the company uses to record performance
- Key features of time series data presented in tables and graphs
- Trends illustrated in tables and graphs
- Purpose of calibrating of equipment

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in calculating and analysing production and financial performance

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in calculating and analysing production and financial performance

Access to the full range of equipment involved in calculating and analysing production and financial performance in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be

EVIDENCE GUIDE

culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Mathematical processes may include:

- addition
- subtraction
- multiplication
- division
- percentages
- ratios and proportions
- volumes

Product characteristics may include:

- length
- weight
- capacity
- time
- temperature
- moisture

Estimates and calculations may be applied to:

- product characteristics e.g. weight, length, volume

RANGE STATEMENT

	<ul style="list-style-type: none">• production tallies• time
Forms for recording information may include:	<ul style="list-style-type: none">• statistical process charts• production tally sheets
Manual or electronic calculations may include:	<ul style="list-style-type: none">• percentages• proportions• ratio• results using decimals, simple fractions and whole numbers percentages
Productivity and efficiency measures may include:	<ul style="list-style-type: none">• delay• waste• speed• tonnage• through put• asset utilisation• machine efficiency
Measuring devices may typically include:	<ul style="list-style-type: none">• scales• vernier callipers• meters• gauges
Calibrations	will typically relate to measuring associated with: <ul style="list-style-type: none">• weight• volume• temperature• length
Legislation, regulatory, licensing and certification requirements may include:	<ul style="list-style-type: none">• OHS and environmental requirements (local, state and commonwealth)
Documentation, procedures and reports may include:	<ul style="list-style-type: none">• SOP• quality procedures• environmental sustainability requirements/practices• plant manufacturing operating manuals• oil or chemical spills and disposal guidelines• plant isolation documentation• safe work documentation e.g. plant clearance, job safety analysis, permit systems
Actions may include:	<ul style="list-style-type: none">• process adjustments• reporting to authorised person

RANGE STATEMENT

- rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPOHS210A Participate in OHS processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the workplace performance required for an entry level employee to participate in OHS processes in the workplace, in order to ensure their own health and safety at work, and that of others in the workplace who may be affected by their actions

Application of the Unit

Application of the unit This unit is intended for application during induction of new entrants to the workplace and where a worker has basic operational knowledge and skills for a limited range of tasks and problems. This includes apprentices, trainees and casual workers

Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices

Contextualisation statement

This unit has been contextualised from the generic Australian Safety and Compensation Council (ASCC) unit OHS200 Participate in OHS processes

The following contextualisation statement is provided as an aid to training and related personnel and others who wish to use pulp and paper industry OHS standards in our industry or other industry contexts

It provides additional information to be read in conjunction with the range statement

General description of the Pulp and Paper Industry context:

Pulping and/or paper manufacturing facilities are generally characterised by:

- State-of-the-art/cutting edge technologies including nano-technology
- Large high-speed equipment (current world-class machinery can produce up to 2 kilometres of paper per minute, depending on paper grade)
- Continuous 24 hour/7 day week/365 day operations
- Fully integrated processes interlinking complex manufacturing operations with related on-site services; supply and distribution operations; and other supporting plant, equipment and functions

- Thousands of different integrated mechanical and electrical componentry that can span four stories in height and take up the space of a street-block in size, with mills occupying up to 3.4 sq km of land (not including filtration wetlands)
- Chemical use comprising chemical recovery operations and may include chemical recovery boiler operations

The nature of the pulp and/or paper manufacturing process *requires* that occupational health and safety be embedded in knowledge and skills development associated with industry specialisations. This unit *must* be holistically assessed with the relevant industry specific (functional) units. This ensures that learners are competent in performing all aspects of their work safely

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare to work safely	1.1. Identify hazards in the work area, and take action to control risk for those hazards the employee can correct 1.2. Report those hazards the employee cannot correct and inadequacies in control measures, in line with organisational procedures 1.3. Carry out pre-start checks as required in line with work procedures
2. Conduct work safely	2.1. Use Personal Protective Equipment (PPE) correctly and maintain when required 2.2. Follow work procedures and workplace instructions for ensuring safety when planning and conducting work 2.3. Report incidents and injuries to designated personnel 2.4. Undertake OHS housekeeping in work area
3. Participate in OHS consultative activities	3.1. Make constructive contributions to workplace meetings, workplace inspections or other OHS consultative activities 3.2. Raise OHS issues with designated personnel in line with organisational procedures 3.3. Provide input to improve workplace OHS systems and processes, in line with organisational procedures, to eliminate hazards or reduce risk
4. Follow emergency response procedures	4.1. Identify and report emergency situations 4.2. Follow organisational procedures for responding to emergencies 4.3. Apply knowledge of roles and responsibilities of OHS representatives and OHS committees

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills:

Ability to:

- Follow clear, logical verbal or clear, logical Plain English written instructions
- Interpret selected pictorial/graphical and written signs/instructions
- Clarify meaning with peers and supervisors, and
- Give accurate verbal or written descriptions of incidents or hazards
- Preparedness to be involved in OHS activities, including inspections and meetings

Required knowledge:

- Safety signs and their meanings, including signs for:
 - Personal Protective Equipment (PPE)
 - emergency equipment
 - dangerous goods class signs
 - specific hazards such as sharps, radiation
- Legal rights and responsibilities of the workplace parties
- The difference between hazard and risk
- Nature of common workplace hazards such as chemicals, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- Standard emergency signals, alarms and required responses
- A basic understanding of the hierarchy of control
- Safety measures related to common workplace hazards
- Sources of OHS information in the workplace with some limited knowledge of external sources of OHS information
- The roles and responsibilities of employees, supervisors and managers in the workplace
- Roles and responsibilities of OHS representatives, OHS committees and employers
- Workplace specific information including:
 - hazards of the particular work environment
 - potential emergencies relevant to the workplace
 - designated person(s) for raising OHS issues
 - organisational and work procedures, particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries, consultation, use of PPE and emergency response; and
 - potential emergency situations, alarms and signals, and required response

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment:

To demonstrate competency in this unit, a candidate must be able to provide evidence of the application of their knowledge of OHS:

- in an actual or simulated workplace context involving relevant work processes
- to their own health and safety within their work area
- to that of others who may be affected by their actions
- A candidate must also be able to provide evidence of participating in workplace OHS processes
- Evidence gathered by an assessor to determine competence will include practical demonstration of competence, including:
 - workplace demonstration, simulation exercise, scenario or role play
 - indirect evidence from workplace supervisor reports and workplace documentation

Products that could be used as evidence include:

- Verbal and written responses to verbal, pictorial, or physical scenarios
- Demonstrated action to scenarios, simulations, role plays
- Completed hazard or incident reports, completed workplace inspection checklists
- Reports from work group members, supervisor
- How contributions were made to consultative processes
- How hazard inspections were carried out

Processes that could be used as evidence include:

- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular

Access and equity considerations:

EVIDENCE GUIDE

relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

A hazard is: a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these

Specific hazards may include, but are not limited to:

- substances e.g. chemicals, starch pulp, steam
- noise
- manual handling
- ergonomics
- underfoot hazards
- slips and trips
- moving parts of machinery
- mobile plant

Other workplace hazards may include, but are not limited to:

- fatigue
- stress
- bullying
- occupational violence

Risk: in relation to any hazard, means the probability and consequences of injury, illness or damage resulting from exposure to a hazard

Residual risk is: the risk which remains after controls have been implemented

Personal protective equipment (PPE) includes: equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may

RANGE STATEMENT

include:

- head protection
- face and eye protection
- respiratory protection
- hearing protection
- hand protection
- clothing and footwear

Incidents include:

any event that has caused or has the potential for injury, ill-health or damage to property, the environment, or a combination of these

Designated personnel may include:

- team leaders
- supervisors
- OHS representatives
- OHS committee members
- managers
- organisation OHS personnel
- other persons designated by the organisation
- employers in office based practice

OHS housekeeping includes:

workplace and personal routines designed to improve health and safety; for example, cleaning up spills; keeping walkways, exits and traffic areas clear

Emergency situations may include:

any abnormal or sudden event that requires immediate action such as:

- serious injury events
- events requiring evacuation
- fires and explosions
- hazardous substance and chemical spills
- explosion and bomb alerts
- security emergencies, such as armed robberies, intruders and disturbed persons
- internal emergencies, such as loss of power or water supply and structural collapse
- external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation

Unit Sector(s)

Not Applicable

FPPOHS310A Contribute to OHS processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the workplace performance required by an employee to contribute to OHS processes where there is responsibility for own work outputs and possibly limited responsibility for the work output of others

Application of the Unit

Application of the unit This unit is intended for application by a skilled worker with little or no responsibility for others

Workers are likely to perform work activities requiring a range of well developed skills where some discretion and judgement is required

Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices

Contextualisation statement This unit has been contextualised from the generic Australian Safety and Compensation Council (ASCC) unit OHS300 Contribute to OHS processes.

The following contextualisation statement is provided as an aid to training and related personnel and others who wish to use pulp and paper industry OHS standards in our industry or other industry contexts

It provides additional information to be read in conjunction with the range statement

General description of the Pulp and Paper Industry context:

Pulping and/or paper manufacturing facilities are generally characterised by:

- State-of-the-art/cutting edge technologies including nano-technology
- Large high-speed equipment (current world-class machinery can produce up to 2 kilometres of paper per minute, depending on paper grade)
- Continuous 24 hour/7 day week/365 day operations
- Fully integrated processes interlinking complex manufacturing operations with related on-site services; supply and distribution operations; and

- other supporting plant, equipment and functions
- Thousands of different integrated mechanical and electrical componentry that can span four stories in height and take up the space of a street-block in size, with mills occupying up to 3.4 sq km of land (not including filtration wetlands)
 - Chemical use comprising chemical recovery operations and may include chemical recovery boiler operations

The nature of the pulp and/or paper manufacturing process *requires* that occupational health and safety be embedded in knowledge and skills development associated with industry specialisations. This unit *must* be holistically assessed with the relevant industry specific (functional) units. This ensures that learners are competent in performing all aspects of their work safely

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and conduct work safely	1.1. Plan work in accordance with relevant provisions of OHS legislation, standards, codes of practice/compliance codes, guidance material and workplace safe working procedures 1.2. Identify hazards as part of work planning and work process 1.3. Address identified hazards as part of work planning and work process 1.4. Report inadequacies in control measures according to organisation procedures 1.5. Report incidents and injuries in line with organisational policies and procedures 1.6. Undertake OHS housekeeping in work area
2. Support others in working safely	2.1. Provide information on safe work practices and work procedures with members of the work group 2.2. Check the OHS practices of less experienced members of the work group 2.3. Provide guidance and coaching to less experienced members of the work group to support them in working safely 2.4. Support members of the work group to accurately record incidents and complete associated workplace documentation in line with organisational procedures
3. Contribute to OHS participative processes	3.1. Raise OHS issues in line with organisational procedures 3.2. Contribute to workplace meetings, workplace inspections or other consultative activities in a constructive manner to improve safety 3.3. Provide assistance to work group members to contribute to workplace safety 3.4. Apply knowledge of roles and responsibilities of OHS representatives and OHS committees
4. Contribute to hazard identification, OHS risk assessment and risk control activities	4.1. Report identified hazard and inadequacies in risk controls

ELEMENT	PERFORMANCE CRITERIA
5. Participate in the control of emergency situations	4.2. Check the workplace for hazards using itemised checklist(s) in line with work procedures 4.3. Contribute to risk assessments 4.4. Provide input into the development and implementation of control measures, with reference to the hierarchy of control 5.1. Identify emergency signals and alarms and respond to them appropriately 5.2. Take initial action to control/confine emergency according to organisation procedures, taking account of the nature and scope of the emergency 5.3. Implement emergency response procedures within scope of training and competence

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

Ability to:

- Check the workplace for hazards and risks using an itemised checklist
- Provide advice and feedback in a constructive and supportive manner

Required knowledge:

- Safety signs and their meanings, including signs for:
 - personal protective equipment
 - emergency equipment
 - dangerous goods class signs
 - specific hazards such as sharps, radiation
- The difference between hazard and risk
- Sources of OHS information within the workplace with knowledge of external sources of OHS information
- Nature of common workplace hazards such as chemicals, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- Basic hazard identification procedures such as workplace inspections and review of

REQUIRED SKILLS AND KNOWLEDGE

workplace data

- Standard emergency signals, alarms and required responses
- Principles of basic risk assessment
- Hierarchy of control and its application
- PPE requirements including use, storage and maintenance
- Roles and responsibilities of employees, supervisors and managers in the workplace
- Roles and responsibilities of OHS representatives, OHS committees
- Workplace specific information including:
 - hazards of the particular work environment
 - hazard identification procedures relevant to the hazards in their workplace
 - designated person(s) for raising OHS issues
 - organisational and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries and OHS issue resolution, consultation, use of PPE and emergency response
 - potential emergency situations, alarms and signals, and required response
- The legal rights and responsibilities of the workplace parties

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment:

To demonstrate competency in this unit, a candidate must be able to provide evidence of contribution to OHS processed in the workplace. This includes:

- addressing their own health and safety
- addressing that of others who may be affected by their actions
- supporting members of the work group who may be less experienced in the workplace in regard to OHS matters
- taking some initiative to address hazards and manage risks at a systemic level
- Evidence gathered by an assessor to determine competence will include practical demonstration of

EVIDENCE GUIDE

<p>Products that could be used as evidence include:</p>	<p>competence, including:</p> <ul style="list-style-type: none"> • workplace demonstration, simulation exercise, scenario or role play • indirect evidence from workplace supervisor reports, workplace documentation, and written responses to problems, scenarios and case studies
<p>Processes that could be used as evidence include:</p>	<ul style="list-style-type: none"> • Evidence of workplace performance over time must be obtained to inform a judgement of competence • Verbal and written responses to verbal, pictorial, or physical scenarios • Demonstrated action to scenarios, simulations, role plays • Completed hazard or incident reports, completed workplace inspection checklists • Reports from work group members, supervisors • How workplace checks/inspections are carried out • How hazards are addressed • How mentoring of fellow work group members is undertaken
<p>Access and equity considerations:</p>	<ul style="list-style-type: none"> • All workers should be aware of access and equity issues in relation to their own area of work • All workers should develop their ability to work in a culturally diverse environment • In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people • Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different

RANGE STATEMENT

work environments and situations that may affect performance. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Hazard identification is the process of identifying sources of harm and may be required:

- before new forms of work and organisation of work are implemented
- before changes are made to workplace, equipment, work processes or work arrangements
- as part of planning major tasks or activities, such as equipment shutdowns
- following an incident report
- when new knowledge becomes available
- at regular intervals during normal operations
- prior to disposal of equipment or materials

A hazard is: a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these

Specific hazards may include, but are not limited to:

- substances e.g. chemicals, starch pulp, steam
- noise
- manual handling
- ergonomics
- underfoot hazards
- slips and trips
- moving parts of machinery
- mobile plant

Other workplace hazards may include, but are not limited to:

- fatigue
- stress
- bullying
- fatigue

Risk in relation to any hazard, means the probability and consequences of injury, illness or damage resulting from exposure to a hazard

Residual risk is the risk which remains after controls have been implemented

Organisational procedures policies and procedures underpinning the

RANGE STATEMENT

include:	<p>management of OHS including:</p> <ul style="list-style-type: none"> • hazard, incident and injury reporting • hazard identification, risk assessment, control and monitoring • consultation and participation • quality system documentation
OHS housekeeping includes:	workplace and personal routines designed to improve health and safety; for example, cleaning up spills, and keeping walkways, exits and traffic areas clear
Information includes:	<ul style="list-style-type: none"> • hazard, incident and investigation reports • workplace inspection reports • incident investigation reports • minutes of meetings • Job Safety Analysis (JSAs) and Risk Assessments (RAs) • Material Safety Data Sheets (MSDS) and registers • employees handbooks • manufacturers' manuals and specifications • information from OHS representatives • reports from OHS committee • information from external sources on hazards and risk relevant to the work group
Work procedures include:	<ul style="list-style-type: none"> • Standard Operating Procedures • permit to work • operator or manufacturer manuals • procedures for selecting, fitting, using and maintaining personal protective equipment
Mentoring and coaching may include:	<ul style="list-style-type: none"> • providing guidance and explanation on implementation of work and organisational procedures • providing feedback • providing encouragement • assisting with problem solving
Incidents include:	any event that has caused or has the potential for injury, ill-health or damage to property, the environment, or a combination of these
Other workplace documentation	<ul style="list-style-type: none"> • job checklists, schedules • workplace inspection check lists

RANGE STATEMENT

may include:

Risk controls include: the devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard

Designated persons may include:

- team leaders
- supervisors
- OHS representatives
- OHS committee members
- managers
- organisational OHS personnel
- other persons designated by the organisation

Hierarchy of control is: the preferred order of control measures of OHS risks:

- elimination - controlling the hazard at the source
- substitution e.g. replacing one substance or activity at the source
- engineering e.g. installing guards on machinery
- administration - policies and procedures for safe work practices
- personal protective equipment e.g. respirators, ear plugs

Emergency signals and alarms may include:

- machinery malfunction alarms
- fire alarms
- evacuation alarms or announcements
- reversing beepers on mobile plant

Emergency may include any abnormal or sudden event that requires immediate action such as:

- serious injury events
- events requiring evacuation
- fires and explosions
- hazardous substance and chemical spills
- explosion and bomb alerts
- security emergencies, such as armed robberies, intruders and disturbed persons
- internal emergencies, such as loss of power or water supply and structural collapse
- external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation

Unit Sector(s)

Not Applicable

FPPOHS320A Maintain OHS processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the workplace performance required by an employee with supervisory responsibilities, to maintain organisational OHS processes

Application of the Unit

Application of the unit This unit is intended to be applied at the level of team leader or supervisor

Workers are likely to perform a broad range of complex and non-routine activities together with leadership and guidance in planning and organising activities for a small work group

Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices

Contextualisation statement This unit has been contextualised from the generic Australian Safety and Compensation Council (ASCC) unit OHS400 Maintain OHS processes

The following contextualisation statement is provided as an aid to training and related personnel and others who wish to use pulp and paper industry OHS standards in our industry or other industry contexts

It provides additional information to be read in conjunction with the range statement

General description of the Pulp and Paper Industry context:

Pulping and/or paper manufacturing facilities are generally characterised by:

- State-of-the-art/cutting edge technologies including nano-technology
- Large high-speed equipment (current world-class machinery can produce up to 2 kilometres of paper per minute, depending on paper grade)
- Continuous 24 hour/7 day week/365 day operations
- Fully integrated processes interlinking complex manufacturing operations with related on-site services; supply and distribution operations and

- other supporting plant, equipment and functions
- Thousands of different integrated mechanical and electrical componentry that can span four stories in height and take up the space of a street-block in size, with mills occupying up to 3.4 sq km of land (not including filtration wetlands)
 - Chemical use comprising chemical recovery operations and may include chemical recovery boiler operations

The nature of the pulp and/or paper manufacturing process *requires* that occupational health and safety be embedded in knowledge and skills development associated with industry specialisations. This unit *must* be holistically assessed with the relevant industry specific (functional) units. This ensures that learners are competent in performing all aspects of their work safely

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Provide information to the work group	1.1. Clearly and accurately explain to the work group relevant provisions of OHS legislation, standards, Codes of Practice/compliance codes, guidance material and safe working procedures and practices 1.2. Provide information on organisational policies and procedures in a readily accessible manner and clearly explain to the work group 1.3. Explain the roles and responsibilities of workplace OHS representatives and OHS committees 1.4. Provide information to the work group, in an accessible and understandable format, on hazards, the outcomes of risk assessments, and required risk controls
2. Ensure others are able to implement safe work practices	2.1. Ensure personal protective equipment appropriate to the work is available and functional 2.2. Implement processes to confirm that others in the work group can identify hazards and required risk controls and are following safe work practices, and organisational policies and procedures 2.3. Identify OHS training needs and either address or report these needs to those with control
3. Implement OHS participative processes	3.1. Consult with the work group and provide advice in relation to OHS matters relevant to their work 3.2. Ensure OHS issues raised are dealt with promptly, and in line with organisational procedures and legislative requirements, or referred to appropriate personnel 3.3. Record outcomes of consultation regarding OHS and promptly communicate these outcomes to the work group
4. Monitor compliance with work procedures	4.1. Check the work procedures for availability, clarity and completeness, addressing any deficiencies or reporting them to appropriate persons 4.2. Identify and address any deviations from procedures or report to appropriate persons 4.3. Evaluate hazard identification and reporting processes for effectiveness and address any

ELEMENT	PERFORMANCE CRITERIA
5. Implement hazard identification, risk assessment and risk control procedures	<p>deficiencies or report to appropriate persons</p> <p>4.4. Monitor OHS housekeeping practices to ensure that workplace standards are maintained, and take action to address any deficiencies</p> <p>4.5. Ensure own behaviour is consistent with organisational safe working procedures and practices</p> <p>5.1. Ensure hazards are identified and eliminated with residual risk reported in line with organisational procedures</p> <p>5.2. Conduct risk assessments</p> <p>5.3. Develop control measures, taking account of the hierarchy of control</p> <p>5.4. Implement and support outcomes of risk assessments and identified risk control</p> <p>5.5. Identify and address and/or report deficiencies in OHS risk controls in line with organisational procedures</p> <p>5.6. Identify personal professional limitations and seek expert advice as required</p>
6. Implement organisational procedures for maintaining OHS records	<p>6.1. Obtain feedback to ensure that work group is aware of organisational reporting requirements</p> <p>6.2. Review OHS records to confirm that they are completed in an accurate, thorough and timely manner in line with legislative and organisational requirements</p> <p>6.3. Use aggregate information and data from records to identify hazards and monitor risk controls</p>
7. Implement emergency procedures	<p>7.1. Obtain feedback to ensure that emergency procedures are available and known by the work group</p> <p>7.2. Implement processes to ensure that emergency equipment is available and routinely checked for functionality</p> <p>7.3. Implement processes to ensure that others in the work group are able to respond appropriately to emergencies</p>

ELEMENT**PERFORMANCE CRITERIA**

7.4. Conduct or contribute to investigations to identify cause of emergencies

7.5. Identify and implement or support control measures to prevent recurrence and minimise risk of emergencies

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

Ability to:

- Use technical skills to access OHS information
- Use language and literacy skills to interpret OHS documentation
- Communicate with personnel in the work team, other work teams, managers and expert advisers
- Supervise and direct staff
- Conduct team meetings
- Relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Required knowledge:

- The difference between hazard and risk
- Sources of OHS information both internal and external to the workplace
- General duty requirements of OHS legislation and also regulatory requirements relevant to the particular industry/type of work site
- The roles and responsibilities of employees, supervisors and managers in the workplace
- Nature of common workplace hazards such as chemicals, bodily fluids, sharps, noise, manual handling, work postures, underfoot hazards and moving parts of machinery
- Knowledge and understanding of guidance material including codes of practice/compliance codes relevant to the particular industry/type of work site
- Hazard identification procedures such as workplace inspections and review of workplace data
- Principles of risk assessment
- The hierarchy of control and its application

REQUIRED SKILLS AND KNOWLEDGE

- PPE requirements including use, storage and maintenance
- Legislative requirements for record keeping and reporting
- Standards and guidelines related to emergency procedures
- Roles and responsibilities of OHS representatives and OHS committees
- Workplace specific information including:
 - hazards of the particular work environment
 - hazard identification procedures relevant to the hazards in their workplace
 - risk controls for specific hazards
 - designated person(s) for raising OHS issues
 - organisational procedures related to OHS including hazard, incident and injury reporting, hazard identification, risk assessment and control, consultation and participation, incident investigation, record keeping
 - work procedures related to the work of the team/work group including use of PPE and emergency response
 - potential emergency situations, alarms and signals, and required response

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment:

- To demonstrate competency in this unit, a candidate must be able to provide evidence of maintaining OHS processes in the workplace particularly in relation to the supervision of a small work group
- Evidence gathered by an assessor to determine competence will include:
 - written or verbal responses to scenarios and case studies
 - provision of workplace examples
 - evidence from workplace supervisor reports
 - portfolio of workplace documentation
- Evidence of workplace performance over time must be obtained to inform a judgement of competence

Products that could be used as

- Verbal and written responses to verbal, pictorial, or

EVIDENCE GUIDE

evidence include:

physical scenarios

- Completed examples of information provided to work group, risk assessments, risk controls developed, reports to managers, reports workplace inspections, audits, emergency exercises
- Reports from work group members, supervisor
- How information transfer was organised and conducted
- How risk assessments were conducted
- How deviations from workplace procedures were addressed.

Processes that could be used as evidence include:

Access and equity considerations:

- All workers should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS legislation includes:

commonwealth, state and territory OHS acts and regulations

Standards include:

- documents produced by national bodies, OHS regulators or industry bodies, that prescribe preventative action to

RANGE STATEMENT

	<ul style="list-style-type: none"> • avert occupational deaths, injuries and diseases • standards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatory • they may be called up as evidence in court or other enforcement action
Codes of practice/compliance codes are:	<ul style="list-style-type: none"> • documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standards • may provide information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance
	Codes of practice/compliance codes may: <ul style="list-style-type: none"> • be incorporated into regulations • not relate to a standard • be called up as evidence in court or other enforcement action
Guidance material:	<ul style="list-style-type: none"> • is an advisory technical document, providing detailed information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance • advises on 'what to do' and 'how to do it' • has no legal standing
Organisational policies and procedures include:	<p>policies and procedures underpinning the management of OHS including:</p> <ul style="list-style-type: none"> • hazard, incident and injury reporting • hazard identification, risk assessment and control and monitoring • consultation and participation • incident investigation • quality system documentation.
A hazard is:	a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Specific safety related hazards may include, but are not limited to:	<ul style="list-style-type: none"> • substances e.g. chemicals, starch pulp, steam • noise • manual handling • ergonomics • underfoot hazards

RANGE STATEMENT

- slips and trips
 - moving parts of machinery
 - mobile plant
- Other workplace hazards may include, but are not limited to:
- fatigue
 - stress
 - bullying
 - occupational violence
- Risk: in relation to any hazard, means the probability and consequences of injury, illness or damage resulting from exposure to a hazard
- Risk assessments involve analysing a hazard to: identify factors influencing the risk and the range of potential consequences:
- effectiveness of existing controls
 - likelihood of each consequence considering exposure and hazard level
 - and combining these in some way to obtain a level of risk
- Risk controls include: the devices and methods to, where practicable, eliminate the hazard or, where this is not practicable, minimise the risk associated with the hazard
- Personal protective equipment (PPE) includes: equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may include:
- head protection
 - face and eye protection
 - respiratory protection
 - hearing protection
 - hand protection
 - clothing and footwear
- Work procedures include:
- Standard Operating Procedures
 - permit to work
 - operator or manufacturer manuals
 - procedures for selecting, fitting, using and maintaining personal protective equipment
- Hazard identification is: the process of identifying sources of harm and may be required:
- at design or pre purchase of equipment and materials
 - at commissioning or pre-implementation of new

RANGE STATEMENT

	<p>processes or practices</p> <ul style="list-style-type: none"> • before new forms of work and organisation of work are implemented • before changes are made to workplace, equipment, work processes or work arrangements • as part of planning major tasks or activities, such as equipment shutdowns • following an incident report • when new knowledge becomes available • at regular intervals during normal operations • prior to disposal of equipment, buildings or materials
Report processes include:	<ul style="list-style-type: none"> • hazards reports • maintenance requests and reports • reports on completion of inspections • incident reports • reports of non-compliance with work procedures • reporting on progress of action plans
OHS housekeeping practices address items such as:	<ul style="list-style-type: none"> • workplace cleanliness and tidiness • unobstructed walkways and emergency exits • underfoot conditions • work space around equipment and machinery • functioning services such as lighting, air flow and ventilation, emergency lighting • storage areas including manual handling issues, storage, personal protective equipment • signage
Residual risk is:	the risk which remains after control have been implemented
Hierarchy of control is:	<p>the preferred order of control measures of OHS risks:</p> <ul style="list-style-type: none"> • elimination - controlling the hazard at the source • substitution e.g. replacing one substance or activity at the source • engineering e.g. installing guards on machinery • administration - policies and procedures for safe work practices • Personal Protective Equipment e.g. respirators, ear plugs
Expert advice can be obtained from:	<p>persons either internal or external to the organisation including:</p> <ul style="list-style-type: none"> • safety professionals • ergonomists

RANGE STATEMENT

- occupational hygienists
- audiologists
- safety engineers
- toxicologists
- occupational health professionals
- OHS representatives
- OHS committees

Other persons providing specific technical knowledge or expertise in areas related to OHS including:

- risk managers
- health professionals
- injury management advisors
- legal practitioners with experience in OHS
- engineers (e.g. design, acoustic, mechanical, civil)
- security and emergency response personnel
- workplace trainers and assessors
- maintenance and trade persons
- hazard, incident and investigation reports
- workplace inspection reports
- incident investigation reports
- first aid reports
- minutes of meetings
- Job Safety Analysis (JSAs) and Risk Assessments (RAs)
- Material Safety Data Sheets (MSDS) and registers
- employee handbooks
- plant and equipment operation records including those relevant to registered plant
- maintenance and testing reports
- training records
- environmental monitoring records
- health surveillance records

OHS records may include:

- OHS legislation for:
 - serious incident and injury reporting
 - registered plant
 - hazardous substances and dangerous goods
 - environmental monitoring; and
 - health surveillance
- privacy legislation

Legislative requirements for record keeping include those specified under:

Emergency may include

- serious injury events

RANGE STATEMENT

any abnormal or sudden event that requires immediate action such as:

- events requiring evacuation
- fires and explosions
- hazardous substance and chemical spills
- explosion and bomb alerts
- security emergencies, such as armed robberies, intruders and disturbed persons
- internal emergencies, such as loss of power or water supply and structural collapse
- external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organisation

Emergency equipment is equipment required as part of the emergency response by the organisation and includes:

- first aid equipment
- eye wash shower or portable eye washes
- fire extinguishers and equipment
- communication equipment
- evaluation alarms
- torches/emergency lighting
- items of clothing such as coloured hats and vests

Incidents include:

any event that has caused or has the potential for injury, ill-health or damage to property, the environment, or a combination of these

Unit Sector(s)

Not Applicable

FPPOHS410A Identify, assess and control OHS risk in own work

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the workplace performance required by a technician or specialist in addressing OHS risk, to ensure their own safety, as well as that of others who may be affected by their work

Application of the Unit

Application of the unit This unit is intended for the technician or specialist work role

These technicians or specialists may, in fulfilling their work role, impact the safety of others and/or need to address their own health and safety

The unit assumes these workers are operating within a systematic approach to OHS with availability of OHS specialist advice

Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices

Contextualisation statement

This unit has been contextualised from the generic Australian Safety and Compensation Council (ASCC) unit OHS456 Identify, assess and control OHS risk in own work

The following contextualisation statement is provided as an aid to training and related personnel and others who wish to use pulp and paper industry OHS standards in our industry or other industry contexts

It provides additional information to be read in conjunction with the range statement

General description of the Pulp and Paper Industry context:

Pulping and/or paper manufacturing facilities are generally characterised by:

- State-of-the-art/cutting edge technologies including nano-technology
- Large high-speed equipment (current world-class machinery can produce up to 2 kilometres of paper per minute, depending on paper grade)
- Continuous 24 hour/7 day week/365 day operations

- Fully integrated processes interlinking complex manufacturing operations with related on-site services; supply and distribution operations and other supporting plant, equipment and functions
- Thousands of different integrated mechanical and electrical componentry that can span four stories in height and take up the space of a street-block in size, with mills occupying up to 3.4 sq km of land (not including filtration wetlands)
- Chemical use comprising chemical recovery operations and may include chemical recovery boiler operations

The nature of the pulp and/or paper manufacturing process *requires* that occupational health and safety be embedded in knowledge and skills development associated with industry specialisations. This unit *must* be assessed in the context of pulp and/or paper manufacturing industry operations

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|---|
| <p>1. Identify hazards and assess risk associated with a product or system of work</p> | <p>1.1. Map the life cycle of the product or system of work</p> <p>1.2. Identify hazards at each stage of the life cycle</p> <p>1.3. Systematically analyse the hazards to identify risk of injury, illness or damage arising from the hazard</p> <p>1.4. Identify factors contributing to the risk</p> <p>1.5. Assess and evaluate the product or system of work against provisions of relevant OHS legislation, standards, codes of practice/compliance codes or guidance material</p> <p>1.6. Consult potential users of the product or system of work</p> |
|--|---|

ELEMENT	PERFORMANCE CRITERIA
2. Control the risk of a product or system of work	<ul style="list-style-type: none">2.1. Develop risk controls based on the hierarchy of control2.2. Where there is a high consequence OHS risk, design fail-to-safe action into the product or system of work to minimise the impact of possible failure or defect2.3. Monitor product or work system development as it evolves to identify new hazards and to manage any developing risk2.4. Use a risk register to document residual risk and recommended actions to minimise risk2.5. Recognise personal professional limitations and seek expert advice as required2.6. Communicate the risk management process and resultant risk register to those who may use or interact with the product or system of work2.7. Document hazard identification, risk assessment and risk control processes and make available to those who may be affected
3. Identify hazards and assess risks in own work	<ul style="list-style-type: none">3.1. Identify and access sources of OHS information3.2. Identify and eliminate hazards, reporting residual risk in line with organisational procedures3.3. Use a risk register to document residual risk and actions to minimise risk based on the hierarchy of control
4. Control risk in own work	<ul style="list-style-type: none">4.1. Ensure work practices follow documented work procedures4.2. Ensure work planning and conduct takes account of residual risk register4.3. Identify and address and/or report deficiencies in risk controls in line with organisational procedures4.4. Maintain OHS records as required4.5. Recognise personal professional limitations and seek expert advice as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

Ability to:

- Use technical skills to access OHS information
- Use language and literacy skills to comprehend and interpret OHS legislation, guidance material and benchmarks
- Communicate with potential users of the product or system of work, other technicians/ specialists, managers and expert advisers
- Suggest scenarios and analyse the scenarios to identify hazards and analyse risk
- Assimilate information from a range of sources
- Relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Required knowledge:

- The difference between hazard and risk
- Sources of OHS information both internal and external to the organisation
- Nature of common workplace hazards such as chemicals, noise, manual handling work postures, underfoot hazards and moving parts of equipment
- Regulatory requirements relevant to the particular industry/type of work site
- Requirements for hazard identification and hazard identification processes
- Principles of risk assessment particularly risk analysis
- Examples of safety benchmarks
- The hierarchy of control and its application
- Principles of 'safe design' processes
- Legislative requirements for record keeping and reporting
- Personal Protective Equipment (PPE) requirements including selection, use, storage and maintenance
- Workplace specific information including:
 - in depth knowledge of hazards of the particular work environment and how they may cause harm
 - hazard identification procedures relevant to the hazards in the workplace
 - work procedures
- Organisational procedures related to OHS including:
 - hazard, incident and injury reporting
 - hazard identification, risk assessment and control
 - consultation and participation
 - incident investigation

REQUIRED SKILLS AND KNOWLEDGE

- record keeping

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment:

- To demonstrate competence in this unit, a candidate must be able to provide evidence of addressing the OHS risks specific to their technical or specialist workplace role, both in relation to their own health and safety, and to the health and safety of others who may be affected by their work
- Evidence gathered by an assessor to determine competence will include:
 - written or verbal responses to scenarios and case studies
 - provision of workplace examples
 - evidence from workplace supervisor reports
 - portfolio of workplace documentation
- Evidence of workplace performance over time must be obtained to inform a judgement of competence

Products that could be used as evidence include:

- Responses to case studies, scenarios
- Completed reports, plans, risk registers, products
- Written directions, emails, memos and other information
- Reports from team leaders, senior managers, users, specialist advisors

Processes that could be used as evidence include:

- How risk was assessed
- How risk was controlled

Access and equity considerations:

- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal

EVIDENCE GUIDE

and Torres Strait Islander people

- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Life cycle covers:

all phases in the life of a product or system of work and may include:

- design and development
- manufacture, construction, assembly
- import, supply, distribution
- sale, hire or lease
- storage
- transport
- installation, erection and commissioning
- use, operation, consumption
- maintenance, servicing, cleaning, adjustment, inspection, repair, modification, refurbishment, renovation
- recycling, resale
- decommissioning, dismantling, demolition, discontinuance, disposal

Product is:

the output of the work, may be for use inside the organisation or for sale and may include:

- development
- production
- modification of physical objects, such as:
 - plant

RANGE STATEMENT

- equipment
 - tool
 - fittings
 - fixtures
 - consumables
- System of work is:
- work process
 - work practice or procedure
 - the way work is organised such as:
 - team and supervision structure
 - reporting lines
 - roster
 - geographical location
- Map includes:
- people who may use or interface with the product or system of work
 - the range of uses of the product or system of work, both intended and unintended
- A hazard is: a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
- Specific safety related hazards may include but are not limited to:
- substances e.g. chemicals, starch pulp, steam
 - noise
 - manual handling
 - ergonomics
 - underfoot hazards
 - slips and trips
 - moving parts of machinery
 - mobile plant
- Other workplace hazards may include, but are not limited to:
- fatigue
 - stress
 - bullying
 - occupational violence
- Analysis/risk assessment involves analysing a hazard to:
- identify:
 - factors influencing the risk and the range of potential consequences
 - effectiveness of existing controls
 - likelihood of each consequence considering exposure and hazard level
- and, combine these in some way to obtain a level

RANGE STATEMENT

	of risk
Risk:	in relation to any hazard, means the probability and consequences of injury, illness or damage resulting from exposure to a hazard
OHS legislation includes:	commonwealth, state and territory OHS Acts and regulations
Standards include:	<ul style="list-style-type: none">documents produced by national bodies, OHS regulators or industry bodies, that prescribe preventative action to avert occupational deaths, injuries and diseasesStandards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatoryStandards may be called up as evidence in court or other enforcement action
Codes of practice/compliance codes are:	<ul style="list-style-type: none">documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standardsmay provide information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance
	Codes of practice/compliance codes may: <ul style="list-style-type: none">be incorporated into regulationsnot relate to a standardbe called up as evidence in court or other enforcement action
Guidance material:	<ul style="list-style-type: none">is an advisory technical document, providing detailed information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidanceadvises on 'what to do' and 'how to do it'has no legal standing
Risk controls include:	the devices and methods to: <ul style="list-style-type: none">where practicable, eliminate the hazardwhere this is not practicable, minimise the risk associated with the hazard
Hierarchy of control is:	the preferred order of control measures for OHS

RANGE STATEMENT

	<p>risks:</p> <ul style="list-style-type: none">• elimination controlling the hazard at the source• substitution e.g. replacing one substance or activity at the source• engineering e.g. installing guards on machinery• administration policies and procedures for safe work practices• Personal Protective Equipment (PPE) e.g. respirators, ear plugs
High consequence OHS risk includes:	high impact events that usually occur rarely such as explosions, fires, building collapses and plant malfunctions, but may result in very serious injury, death or multiple death situations
Fail-to-safe includes:	design features of equipment that ensure a failure or defect, or another factor such as loss of power, results in the equipment being left in a safe condition
Risk register is a document detailing:	<ul style="list-style-type: none">• a list of hazards, their location and people exposed• a range of possible scenarios or circumstances under which these hazards may cause injury or damage• nature of injury or damage caused• the results of the risk assessment• possible control measures and dates for implementation
Residual risk is:	the risk which remains after controls have been implemented
Expert advice may be sought from:	<ul style="list-style-type: none">• persons either internal or external to the organisation including:<ul style="list-style-type: none">• safety professionals• ergonomists• occupational hygienists• audiologists• safety engineers• toxicologists• occupational health professionals• other persons providing specific technical

RANGE STATEMENT

knowledge or expertise in areas related to OHS including:

- risk managers
- health professionals
- injury management advisors
- legal practitioners with experience in OHS
- engineers (such as design, acoustic, mechanical, civil)
- security and emergency response personnel
- workplace trainers and assessors
- maintenance and tradespersons

Sources of OHS information include

persons, organisations and references where knowledge about OHS may be obtained

These sources may be:

- internal, including:
 - hazard, incident and investigation reports
 - workplace inspections
 - incident investigations
 - minutes of meetings
 - Job Safety Analysis (JSAs) and Risk Assessments (RAs)
 - organisational data such as insurance records, enforcement notices and actions, workers compensation data, OHS performance data
 - reports and audits
 - material safety data sheets (MSDSs) and registers
 - employees handbooks
 - employees including questionnaire results
 - OHS advisors
 - manufacturers' manuals and specifications
- external, including:
 - regulatory bodies and OHS Acts regulations, codes and guidance material
 - other relevant legislation
 - Safe Work Australia documents
 - databases such as national and state injury data

RANGE STATEMENT

- OHS specialists and consultants
- newspapers and journals, trade/industry publications
- internet sites
- industry networks and associations including unions and employer groups
- OHS professional bodies
- specialist advisors
- research information

Organisational policies and procedures include:

policies and procedures underpinning the management of OHS including:

- hazard, incident and injury reporting
- hazard identification, risk assessment and control and monitoring
- consultation and participation
- incident investigation
- quality system documentation

Work procedures include:

- Standard Operating Procedures
- permit to work
- operator or manufacturer manuals
- procedures for selecting, fitting, using and maintaining personal protective equipment

OHS records may include:

- hazard, incident and investigation reports
- workplace inspection reports
- incident investigation reports
- first aid records
- minutes of meetings
- job safety analyses (JSAs) and risk assessments
- material safety data sheets (MSDSs) and registers
- employees handbooks
- plant and equipment operation records including those relevant to registered plant
- maintenance and testing reports
- training records
- environmental monitoring records
- health surveillance records

Unit Sector(s)

Not Applicable

FPPOHS420A Manage OHS processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit specifies the workplace performance required by an individual responsible for ongoing management of OHS within an area of management responsibility, where the OHS management processes have been set up by other persons, either internal or external to the organisation

Application of the Unit

Application of the unit This unit is intended for application by a manager of a small organisation or several work groups or a larger group within an organisation

Work is likely to have a focus on maintaining already established processes and the unit assumes that OHS advice and expertise would be available

Application of this unit should be contextualised to reflect any specific workplace risks, hazards and associated safety practices

Contextualisation statement

This unit has been contextualised from the generic Australian Safety and Compensation Council (ASCC) unit OHS500 Manage OHS processes.

The following contextualisation statement is provided as an aid to training and related personnel and others who wish to use pulp and paper industry OHS standards in our industry or other industry contexts

It provides additional information to be read in conjunction with the range statement

General description of the Pulp and Paper Industry context:

Pulping and/or paper manufacturing facilities are generally characterised by:

- State-of-the-art/cutting edge technologies including nano-technology
- Large high-speed equipment (current world-class machinery can produce up to 2 kilometres of paper per minute, depending on paper grade)
- Continuous 24 hour/7 day week/365 day operations
- Fully integrated processes interlinking complex manufacturing operations with related on-site services; supply and distribution operations and

- other supporting plant, equipment and functions
- Thousands of different integrated mechanical and electrical componentry that can span four stories in height and take up the space of a street-block in size, with mills occupying up to 3.4 sq km of land (not including filtration wetlands)
 - Chemical use comprising chemical recovery operations and may include chemical recovery boiler operations

The nature of the pulp and/or paper manufacturing process *requires* that occupational health and safety be embedded in knowledge and skills development associated with industry specialisations. This unit *must* be assessed in the context of pulp and/or paper manufacturing industry operations

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Manage OHS information and records	1.1. Identify and access relevant OHS legislation, standards, codes or practice/compliance codes, guidance material and other sources of OHS information and evaluate their relevance to the specific work context 1.2. Collect and collate OHS information to provide information on OHS requirements, trends and risk controls 1.3. Review records and record keeping processes to ensure that legal requirements for OHS record keeping are identified and addressed 1.4. Implement and monitor processes for ensuring that OHS records are accurately completed, collected and stored in line with legal requirements and workplace procedures
2. Manage OHS participative processes	2.1. Monitor participative processes to ensure compliance with legislative requirements and organisational procedures 2.2. Evaluate information provided to employees to ensure it is in a readily accessible and understandable format 2.3. Implement and monitor processes for ensuring that workgroup members have an opportunity, either directly or through their representative, to contribute to decisions that may affect their health and safety 2.4. Evaluate processes for addressing OHS issues, to ensure issues raised through consultation are resolved promptly and in line with organisational procedures and legislative requirements 2.5. Promptly provide information about the outcomes of consultation in a format and medium that is readily accessible to employers
3. Manage OHS risk management processes	3.1. Ensure hazard, incident, and injury reporting and investigation processes are in place, to meet legislative requirements and to inform future prevention strategies 3.2. Ensure processes are in place so that hazard identification and risk assessments occur in line with organisation procedures

ELEMENT	PERFORMANCE CRITERIA
4. Manage OHS training program	<p>3.3. Ensure risk controls and hazard specific procedures are consistent with the hierarchy of control and are monitored to support compliance with legislative and regulatory requirements</p> <p>3.4. Ensure processes are in place to identify and address any OHS implications of either proposed or implemented changes to the workplace, work processes or organisation of work</p> <p>3.5. Recognise limits of own professional expertise and consult expert advisors as required</p> <p>4.1. Ensure OHS training needs assessment is undertaken for workgroup members, that takes account of legislative and regulatory requirements, internal policies and procedures, existing skills of workgroup members and risk control requirements</p>
5. Manage OHS continuous improvement process	<p>4.2. Implement and monitor training programs to ensure identified OHS training requirements are addressed</p> <p>4.3. Implement and monitor processes to ensure that all new employees receive OHS induction</p> <p>4.4. Access and consult relevant OHS and training specialists as required, in the development and implementation of the OHS training program(s)</p> <p>5.1. Consider input from individuals and workgroup in identifying and implementing OHS improvement</p> <p>5.2. Determine OHS priorities in consultation with appropriate managers and stakeholders</p> <p>5.3. Develop OHS action plans taking account of priorities and training needs</p> <p>5.4. Monitor achievements against the OHS plans and update plans accordingly</p>

5

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills:

Ability to:

- Use technical skills to access OHS information
- Use language and literacy and conceptual skills to analyse and evaluate OHS information
- Communicate with supervisors, other managers, staff, OHS inspectors and expert advisers in a range of contexts, and using a range of media and formats
- Conduct effective meetings
- Develop solutions to complex OHS problems, utilising information from a range of sources
- Apply an action planning process
- Assimilate information from a range of sources to evaluate effectiveness of processes
- Relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Required knowledge:

- The difference between hazard and risk
- Sources of OHS information both internal and external to the workplace
- Understanding of OHS legislation and regulatory requirements relevant to the particular industry/type of work site
- Regulatory requirements relevant to the particular industry/type of work site
- The roles and responsibilities of employees, supervisors and managers in the workplace
- Legislative requirements for consultation
- Legal and practical requirements for OHS training
- Legal requirements for OHS record keeping and reporting
- Knowledge and understanding of guidance material including codes of practice/compliance codes relevant to the particular industry/type of work site
- Risk assessment process, including:
 - Hazard identification procedures
 - Principles of risk assessment
 - The hierarchy of control and its application
- Legislative requirements for record keeping and reporting
- Systems for identifying skill needs, for example:
 - performance reviews
 - training needs analysis
 - identifying additional training needs of learners
- Workplace specific information including:
 - hazards of the particular work environment and how they cause harm

REQUIRED SKILLS AND KNOWLEDGE

- hazard identification procedures relevant to the hazards in the workplace
- awards and enterprise agreements that impact on the particular workplace
- the characteristics and composition of the workforce and how they may impact on the management of OHS
- designated person(s) for raising OHS issues
- Organisational procedures related to OHS including:
 - hazard, incident and injury reporting
 - hazard identification, risk assessment and control
 - consultation and participation
 - incident investigation
 - record keeping

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment:

- To demonstrate competence in this unit, a candidate must be able to provide evidence of managing OHS processes for a small organisation or a group(s) or persons undertaking a range of work
- Evidence gathered by an assessor to determine competence will include:
 - written or verbal responses to scenarios and case studies
 - reports from persons who have been involved in the management process
 - portfolio of workplace documentation
- Evidence of workplace performance over time must be obtained to inform a judgement of competence

Products that could be used as evidence include:

- Verbal and written responses to verbal, pictorial or physical scenarios
- Demonstrated action to scenarios, simulations, role plays
- Completed reports to senior managers
- Written directions, emails, memos and other information provided to supervisors in area of responsibility
- Reports from team leaders, senior managers, other managers, specialist advisers

Processes that could be used as evidence include:

- How training needs were identified and addressed
- How action plans are developed, monitored and updated
- How hazard identification and risk assessment occur

Access and equity considerations:

- All workers should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal

EVIDENCE GUIDE

- and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS legislation includes:

commonwealth, state and territory OHS Acts and regulations

Standards include:

- documents produced by national bodies, OHS regulators or industry bodies, that prescribe preventative action to avert occupational deaths, injuries and diseases
- standards are of an advisory nature only, except where a law adopts the standard and thus makes it mandatory
- standards may be called up as evidence in court or other enforcement action

Codes of practice/compliance codes are:

- documents generally prepared to provide advice to employers and workers, of an acceptable way of achieving standards
- may provide information for use by unions, employers, management, health and safety committee members and representatives, safety officers and others requiring guidance

Codes of practice/compliance codes may:

- be incorporated into regulations
- not relate to a standard
- be called up as evidence in court or other enforcement action

Guidance material:

- is an advisory technical document, providing detailed information for use by unions, employers, management,

RANGE STATEMENT

	<p>health and safety committee members and representatives, safety officers and others requiring guidance</p> <ul style="list-style-type: none"> • advises on 'what to do' and 'how to do it' • has no legal standing
Other sources of OHS information include	<p>persons, organisations and references where knowledge about OHS may be obtained</p> <p>These sources may be:</p> <ul style="list-style-type: none"> • internal, including: <ul style="list-style-type: none"> • hazard, incident and investigation reports • workplace inspections • incident investigations • minutes of meetings • Job Safety Analysis (JSAs) and Risk Assessments (RAs) • organisational data such as insurance records, enforcement notices and actions, workers compensation data, OHS performance data • reports and audits • material safety data sheets (MSDSs) and registers • employees handbooks • employees including questionnaire results • OHS advisors • manufacturers' manuals and specifications • external, including: <ul style="list-style-type: none"> • regulatory bodies and OHS Acts regulations, codes and guidance material • other relevant legislation • Safe Work Australia documents • databases such as national and state injury data • OHS specialists and consultants • newspapers and journals, trade/industry publications • internet sites • industry networks and associations including unions and employer groups • OHS professional bodies • specialist advisors • research information
OHS information	<ul style="list-style-type: none"> • requirements under OHS legislation, regulations,

RANGE STATEMENT

- includes: standards, codes of practice/compliance codes and guidelines
- rights and responsibilities
 - information on hazards including MSDSs
 - collated information on hazard incidents and injuries
 - investigation and audit reports
 - outcomes of hazard identifications and workplace inspections
 - Risk Assessments (RAs)
 - risk controls
 - workplace OHS policies and procedures
 - work procedures
 - training records
- Risk controls include: the devices and methods to:
- where practicable, eliminate the hazard
 - where this is not practicable, minimise the risk associated with the hazard
- Legal requirements for record keeping include: that specified under OHS legislation and regulations for:
- serious incident and injury reporting
 - registered plant
 - hazardous substances and dangerous goods
 - environmental monitoring
 - health surveillance
 - privacy legislation
- OHS records may include:
- hazard, incident and investigation reports
 - workplace inspection reports
 - incident investigation reports
 - first aid records
 - minutes of meetings
 - job safety analyses (JSAs) and risk assessments
 - material safety data sheets (MSDSs) and registers
 - plant and equipment operation records including those relevant to registered plant
 - maintenance and testing reports
 - training records
 - environmental monitoring records
 - health surveillance records
- Participative processes include: processes that:
- inform employees and other stakeholders of OHS

RANGE STATEMENT

	<p>matters and seek their input</p> <ul style="list-style-type: none"> • offer opportunity for stakeholders to participate in decisions that may impact on their health and safety <p>Participative processes may also be referred to as 'consultative processes', however 'participation' implies a higher level of involvement</p>
Organisational policies and procedures include:	<p>policies and procedures underpinning the management of OHS including:</p> <ul style="list-style-type: none"> • hazard, incident and injury reporting • hazard identification, risk assessment and control and monitoring • consultation and participation • incident investigation • quality system documentation
Consultation includes processes for:	<ul style="list-style-type: none"> • seeking information or the opinions from one or more people prior to decision-making • consultation should particularly include those who may affect the outcomes or be affected by the decisions made but may also include specialist sources
A hazard is:	<ul style="list-style-type: none"> • a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Specific safety related hazards may include but are not limited to:	<ul style="list-style-type: none"> • substances e.g. chemicals, starch pulp, steam • noise • manual handling • ergonomics • underfoot hazards • slips and trips • moving parts of machinery • mobile plant
Other workplace hazards may include, but are not limited to:	<ul style="list-style-type: none"> • fatigue • stress • bullying • occupational violence
Incident includes:	<ul style="list-style-type: none"> • any event that has caused or has the potential for injury, ill health or damage
Hazard identification is	<p>the process of identifying sources of harm an may be required:</p> <ul style="list-style-type: none"> • at design or pre purchase of equipment of materials • at commissioning or pre-implementation of new

RANGE STATEMENT

	<p>processes or practices</p> <ul style="list-style-type: none"> • before new forms of work and organisation of work are implemented • before changes are made to workplace, equipment, work processes or work arrangements • as part of planning major tasks or activities, such as equipment shutdowns • following an incident report • when new knowledge becomes available • at regular intervals during normal operations • prior to disposal of equipment, buildings or materials
Risk:	in relation to any hazard, means the probability and consequences of injury, illness or damage resulting from exposure to a hazard
Risk assessments	<p>involve analysing a hazard to identify:</p> <ul style="list-style-type: none"> • factors influencing the risk and the range of potential consequences • effectiveness of existing controls • likelihood of each consequence considering exposure and hazard level <p>and, combine these in some way to obtain a level of risk</p>
Hierarchy of control is	<p>the preferred order of control measures for OHS risks:</p> <ul style="list-style-type: none"> • elimination controlling the hazard at the source • substitution e.g. replacing one substance or activity at the source • engineering e.g. installing guards on machinery • administration policies and procedures for safe work practices • Personal Protective Equipment (PPE) e.g. respirators, ear plugs
Expert advisers include:	<p>persons either internal or external to the organisation including:</p> <ul style="list-style-type: none"> • safety professionals • ergonomists • occupational hygienists • audiologists • safety engineers • toxicologists • occupational health professionals

RANGE STATEMENT

and, other persons providing specific technical knowledge or expertise in areas related to OHS including:

- risk managers
- health professionals
- injury management advisors
- legal practitioners with experience in OHS
- engineers (such as design, acoustic, mechanical, civil)
- security and emergency response personnel
- workplace trainers and assessors
- maintenance and tradepersons

OHS induction includes: the processes by which new employees are introduced to, and acquainted with their job and the new workplace, including familiarisation with:

- hazards and risks associated with the work
- risk control measures
- welfare facilities
- emergency response procedures

Stakeholders are: those people or organisations who may be affected by, or perceive themselves to be affected by an activity or decision including:

- managers
- supervisors
- health and safety and other employee representatives
- OHS committees
- employees and contractors
- the community

OHS action plans include: documented plans developed within the workplace to implement a systematic approach to OHS management and contain:

- actions that support an integrated strategy to address deficiencies, meet obligations or provide or improved outcomes
- allocated responsibilities
- timeframes

Unit Sector(s)

Not Applicable

FPPPLN210A Plan and undertake a routine task

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to plan and undertake a routine task in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to operators who plan and undertake a routine task in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify task requirements
- plan steps required to complete task, and
- review plan

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify tasks requirements	1.1. Task requirements are identified within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Instructions on procedures are obtained, understood and clarified 1.3. Task outcomes are identified 1.4. Relevant specifications for task outcomes are obtained, understood and clarified 1.5. Task requirements, including completion time and quality measures are identified
2. Plan steps required to complete task	2.1. Steps required to complete task are planned within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Individual steps or activities required to undertake task are understood and clarified where necessary 2.3. Planned steps and outcomes are checked to ensure conformity with instructions and relevant specifications 2.4. Required sequence of activities to be completed are identified in plan
3. Review plan	3.1. Plan is reviewed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Outcomes are identified and compared with planned objectives, task instructions, specifications and task requirements 3.3. Plan is revised, when necessary, to better meet objectives and task requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in planning and undertaking a routine task
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Develops plans for a task from information provided, incorporating technical, quality and time requirements, which is capable of achieving appropriate results
- Modifies plans as a result of outcomes achieved

Required knowledge

- Procedures, regulations and legislative requirements relevant to planning and undertaking a routine task including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Planning the completion of a task
- Technical, quality and time requirements to complete a task

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in planning and undertaking a routine task

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in planning and undertaking a routine task

Access to the full range of equipment involved in planning and undertaking routine tasks in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information provided to assist planning may include:

- instructions
- standard operation sheets
- specifications
- quality requirements
- time allowances
- outcome requirements
- performance requirements

Plans

- may or may not be documented
- may include tasks involving one or more steps or functions

Planning may involve:

- activities performed in accordance with established procedures

and may require:

- modification of procedures to deal with unforeseen developments

RANGE STATEMENT

- and will be:
- related to work tasks and environments which are familiar to individual undertaking planning activity
- Activity may require:
- prioritising and sequencing of individual components
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - enterprise policies and procedures
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Actions may include:
- plan adjustments/modification
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPLN420A Plan a complex activity

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to plan a complex activity in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who plan a complex activity in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify complex activity requirements
- identify work method, and
- prepare complex activity plan

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify complex activity requirements	1.1. Complex activity requirements are identified within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Information recording timeframe, quality requirements, personal time availability and other resources available are obtained and examined 1.3. Resources required for complex activity completion are identified 1.4. Time available for completion of complex activity is identified
2. Identify work method	2.1. Work method is identified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Alternative work methods to meet complex activity objectives are identified 2.3. Relative advantage and disadvantage of each work method is established 2.4. Most appropriate work method is selected
3. Prepare complex activity plan	3.1. Complex activity plan is prepared within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Appropriate sequences of tasks are determined 3.3. Critical path for completion of complex activity within time and budget is determined 3.4. Individual tasks required to apply work method and meet objectives are identified 3.5. Complex activity plan is documented

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in planning a complex activity
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Develops a plan for a complex activity from information provided, incorporating technical, quality and time requirements, which is capable of appropriate results
- Modifies plans as a result of outcomes achieved
- Prioritises components of complex activities to achieve performance, quality and time requirements

Required knowledge

- Procedures, regulations and legislative requirements relevant to planning a complex activity including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Components of complex activities to achieve performance, quality and time requirements
- Technical, quality and time requirements to complete a complex activity

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in planning a complex activity

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in planning a complex activity

Access to the full range of equipment involved in planning a complex activity in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

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performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information provided to assist planning may include:

- instructions
- standard operation sheets
- specifications
- quality requirements
- time allowances
- outcome requirements
- performance requirements
- may or may not be documented

Plans

and may include:

- tasks involving one or more steps or functions
- a complete activity
- activities performed in accordance with established procedures

Planning may involve:

but may require:

- modification of procedures to deal with unforeseen developments

RANGE STATEMENT

- and will be:
- related to work tasks and environments which are familiar to individual undertaking planning activity
- Activity may require:
- prioritising and sequencing of individual components
- Complex activities may include:
- clothing change
 - total plant shutdown/startup
 - grade/product change involving multiple process operations
 - trials
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - enterprise policies and procedures
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Actions may include:
- plan adjustments/modification
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets. data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms,

RANGE STATEMENT

- observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPRM210A Undertake operator level preventative maintenance

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to undertake operator level preventative maintenance in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to persons who undertake operator level preventative maintenance in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- carry out preventative maintenance inspections of plant and equipment
- carry out preventative maintenance of plant and equipment, and
- action faults

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Carry out preventative maintenance inspections of plant and equipment	1.1. Preventative maintenance inspections of plant and equipment are carried out within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating 1.2. Routine preventative maintenance inspections are undertaken 1.3. Faulty plant and equipment are identified 1.4. Faulty plant and equipment, as identified, are communicated and documented
2. Carry out preventative maintenance of plant and equipment	2.1. Preventative maintenance of plant and equipment is carried out within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Location of plant and equipment is identified 2.3. Routine preventative maintenance sequence of activities is determined 2.4. Isolation procedures are followed as required 2.5. Process and navigation controls are interpreted 2.6. Preventative maintenance activities are undertaken 2.7. Appropriate tools, materials and equipment are selected and used for operator level preventative maintenance 2.8. Preventative maintenance activities are documented
3. Action faults	3.1. Faults are actioned within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Faulty plant and equipment is actioned within limits of responsibility 3.3. Action on faulty plant and equipment is communicated and documented

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in undertaking operator level preventative maintenance
- Reads and interprets required documentation, procedures and reports
- Communicates preventative maintenance with team and related service personnel
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Interprets instruments, gauges and other recording equipment
- Interprets process and instrumentation diagrams
- Reports faulty plant and equipment according to SOP
- Interprets instrumentation data as an indication of plant and equipment requiring preventative maintenance
- Identifies and investigates reasons for faulty equipment
- Identifies and monitors process control points
- Applies isolation procedure, when required, according to site policy
- Removes isolations according to site policy
- Identifies locations or items of potential hazards and procedures to overcome them
- Applies methods to contain potential hazards, spillages and leaks
- Maintains a clean and hazard free work area
- Selects appropriate hand and/or power tools according to task requirements
- Checks tools before use and unsafe or faulty items are identified and marked for repair according to SOP
- Completes minor maintenance tasks in accordance with SOP
- Makes appropriate adjustments as required to meet changing conditions
- Follows maintenance inspection routines
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to undertaking operator level preventative maintenance including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility

REQUIRED SKILLS AND KNOWLEDGE

- Use of instrumentation data as an indication of plant and equipment requiring preventative maintenance
- Consequences of inadequate preventative maintenance
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in undertaking operator level preventative maintenance

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in undertaking operator level preventative maintenance

Access to the full range of equipment involved in undertaking operator level preventative maintenance in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be

EVIDENCE GUIDE

culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- Routine preventative maintenance inspections may include:
- levels in sight glasses
 - belt fatigue
 - gear backlash
 - stretch and slack in chains
 - sprocket wear
 - gear box noise and heat
 - damaged equipment or components
 - control panel indicators
 - electronic control indicators
 - air and oil pressure gauges
 - flow levels
 - pressure checks
- Routine preventative maintenance activities may include:
- oil top ups
 - blade changes
 - filter changes or cleaning

RANGE STATEMENT

- greasing
 - lubricating
 - housekeeping
 - pressure checks
 - removal or replacing
 - maintaining or replacing consumables
- Actions may include:
- shutdown
 - isolation
 - by-passing systems
 - making adjustments
 - assisting in remedial maintenance
 - communicating with maintenance and engineering personnel
 - confirming availability of parts
 - containment of potential hazards, spillage and leaks
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Equipment may include:
- personal protective equipment and clothing
 - compressed air
 - hand and power tools
 - machine systems
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to undertaking preventative maintenance
- Legislation, regulatory, licensing and certification requirements may
- OHS and environmental requirements (local, state and commonwealth)

RANGE STATEMENT

include:

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policies and procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Communications may include:

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operational support personnel
- operational management
- statutory authorities

Situational awareness may include:

awareness of :

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

RANGE STATEMENT

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPPRM220A Perform lubrication

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to perform lubrication in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to persons who perform lubrication in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- prepare for lubrication
- conduct lubrication activities
- record and report on lubrication activities, and
- maintain stock in lubrication store

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for lubrication	1.1. Preparation for lubrication is completed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Store supplies are checked 1.3. Lubrication schedule confirmed 1.4. Tools, equipment and supplies are prepared to fulfil schedule 1.5. Communication is made with operator regarding access to equipment
2. Conduct lubrication activities	2.1. Lubrication activities are conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Lubrication tasks are completed 2.3. Right lubricant is used for specific points 2.4. Supplies are topped up as required 2.5. Issues identified during lubrication are communicated with operator and/or maintenance personnel
3. Record and report on lubrication activities	3.1. Lubrication activities are recorded and reported on within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Lubrication documentation is completed 3.3. Work orders are raised as required
4. Maintain stock in lubrication store	4.1. Stock in lubrication store is maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Stocktake of lubricant stocks in store is conducted 4.3. Action is taken to re-stock store as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in performing lubrication
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Recognises lubrication issues
- Identifies lubricants
- Identifies lubrication points
- Filling procedures
- Decanting
- Uses lubrication tools and equipment
- Uses measuring equipment
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to performing lubrication including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Principles of lubrication
- Types of lubricant and their application
- Lubrication schedules for plant and equipment
- Consequences of inadequate or incorrect lubrication
- Spills and environmental impact
- Action to be taken in case of spills
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in performing lubrication

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in performing lubrication

Access to the full range of equipment involved in performing lubrication in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Lubrication materials may include:

- various grades of oils and grease
- graphite grease
- marine packing grease

Issues that arise during lubrication may include:

- leaks
- overheating
- dry bearings
- vibration
- noise
- smell
- discolouration

Equipment may include:

- personal protective equipment and clothing
- compressed air
- hand and power tools
- machine systems
- computer systems
- electronic screens and alarms
- process control systems

RANGE STATEMENT

- analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to performing lubrication
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - enterprise policies and procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities

RANGE STATEMENT

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPPRS210A Identify and rectify problems in the workplace

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to identify and rectify workplace problems in the pulp and paper industry within limits of responsibility

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who identify and rectify workplace problems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and describe the problem and its effects
- analyse the problem and determine priority of causes
- apply possible solutions, and
- document and report problems and solutions

to meet safety, quality and productivity requirements

It does not include solving systemic problems in the workplace

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe the problem and its effects	1.1. Problem and its effects is identified and described within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Problem is clearly described 1.3. Effect of the problem on personal safety, equipment safety, quality and productivity is identified 1.4. Mill procedures are instituted where personal safety is identified
2. Analyse the problem and determine priority of causes	2.1. Problem is analysed and priority of causes is determined within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Possible causes are identified 2.3. Impact of the problem on machinery performance is determined 2.4. Likelihood of each possible cause occurring is considered 2.5. Ability to do a quick check on each cause is determined 2.6. Possible causes for investigation are prioritised 2.7. Analysis and determination of possible causes is completed in a timely manner
3. Apply possible solutions	3.1. Possible solutions are applied within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Quick checks are conducted if possible 3.3. Possible solutions are applied 3.4. Outcome is reviewed 3.5. Next possible solution is actioned in prioritised order
4. Document and report problems and	4.1. Completion of documentation and reporting within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping

ELEMENT	PERFORMANCE CRITERIA
solutions	<p>requirements</p> <p>4.2. Problem and the solution is documented as required</p> <p>4.3. Problem and solution is reported to relevant personal as required</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in identifying and rectifying problems in the workplace
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Uses troubleshooting guides and diagnostic procedures
- Interprets instruments, gauges and data recording equipment
- Maintains situational awareness in the work area
- Takes samples, conducts tests and interprets results if required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulp and paper operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Working knowledge of system, processes and associated services sufficient for

REQUIRED SKILLS AND KNOWLEDGE

problem solving within level of responsibility, and may include:

- plant layout
- theory of operation
- causes and effects of adjustments made to equipment and processes
- relationships between system, processes and associated services
- effects of process variables on production and quality
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Plant operation and control mechanisms, within level of responsibility
- Sensory information that indicates a deviation from standard operating parameters, within level of responsibility
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control pulp and paper operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in identifying and rectifying problems in the workplace

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in identifying and rectifying problems in the workplace

Access to the full range of equipment involved in integrated continuous manufacturing in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be

EVIDENCE GUIDE

culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Type and extent of the problem may include:

- quality or equipment problem
- position/location of defect or problem
- continuous or intermittent
- deterioration
- how long it has been occurring
- when/who first observed the problem
- paper quality

Resources may include:

- personnel
- equipment
- production process
- materials or supplies
- trouble shooting guides

Machinery performance may include:

- significant, moderate, minor or no equipment damage
- short or prolonged machine shut

RANGE STATEMENT

- quality outside acceptable parameters
 - quality compromises
 - substantial, moderate or minor increases in waste
 - significant, moderate or minor productivity losses
- Chances may include:
- almost certain
 - likely
 - possible
 - unlikely
 - rare
- Operations may include:
- coating systems
 - handling and preparing primary resources
 - steam generation
 - electrical power generation
 - handling and preparing waste paper for pulp production
 - waste paper operations
 - pulping operations
 - chemical recovery operations
 - finishing and converting
 - stock preparation operations
 - wet end operations
 - dry end operations
 - water services
- Equipment may include:
- communication equipment and 2-way radios
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to plant operations and systems
- Electronic control systems may include:
- Digital Control Systems (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - statutory requirements (local, state and commonwealth)
 - operator licences and endorsements

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
- Material Safety Data Sheets (MSDS)
- furnish sheets
- tally sheets
- process and instrument diagrams
- process improvement systems
- planning documents
- small group presentations
- minutes of meeting

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Sampling and testing may include:

- stock consistency
- stock colour
- stock brightness
- water quality
- waste paper quality
- visual assessments
- stickies

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- maintenance services
- operational management

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards

RANGE STATEMENT

- Forms of communications may include:
- obstruction
 - unexpected movement
 - written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms
 - signage e.g. safety access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPPRS320A Solve systemic problems in the workplace

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to solve systemic problems in the pulp and paper industry within limits of responsibility

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to operators who solve systemic problems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and describe the problem
- assess the situation and determine actions
- conduct analysis
- determine action plan
- implement plan
- monitor and evaluate the solution, and
- document and report changes

to meet safety, quality and productivity requirements

It does not include identifying and rectifying problems in the workplace

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and describe the problem	<p>1.1. Problem is identified and described within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Information is gathered to define the type of problem</p> <p>1.3. Information is gathered to define the extent of the problem</p> <p>1.4. Information is gathered on the effect of the problem with regard to quality or productivity</p>
2. Assess the situation and determine actions	<p>2.1. Situation is assessed and actions are determined within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Immediate action is taken if safety, quality or productivity are compromised</p> <p>2.3. Personnel are notified as required</p> <p>2.4. Problem is referred to appropriate group or department if required</p> <p>2.5. Possible types of problem solving activities/methodologies available are assessed and most appropriate is determined</p>
3. Conduct analysis	<p>3.1. Analysis is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2. Team is assembled for analysis, if required</p> <p>3.3. Selected problem solving methodology is used</p> <p>3.4. Possible solutions are determined</p> <p>3.5. Quick fixes are conducted if required</p> <p>3.6. Favoured solutions are determined</p>
4. Determine action plan	<p>4.1. Action plan is determined within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping</p>

ELEMENT	PERFORMANCE CRITERIA
	requirements
	4.2. Action plan is developed including contingencies
	4.3. Plan is documented following workplace procedures
	4.4. Plan is communicated to appropriate personnel
	4.5. Plan is approved by appropriate personnel
5. Implement plan	5.1. Plan is implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	5.2. Resources to implement the plan are identified and organised
	5.3. Plan is scheduled
	5.4. Plan is communicated to team and other personnel
	5.5. Team members are assisted where required
	5.6. Planned changes are made to solve the problem
6. Monitor and evaluate the solution	6.1. The solution is monitored and evaluated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	6.2. Changes are monitored
	6.3. Effectiveness of the solution is evaluated
	6.4. Contingency plans are implemented if required
7. Document and report changes	7.1. Changes are documented and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	7.2. Required documentation is finalised
	7.3. Outcome of the solution is reported
	7.4. Outcomes of the solution are communicated to team and appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in solving systemic problems in the workplace
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Reads complex text
- Demonstrates leadership
- Identifies resources and undertakes planning
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate problem solving methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Uses troubleshooting guides and diagnostic procedures
- Interprets instruments, gauges and data recording equipment
- Maintains situational awareness in work area
- Takes samples, conducts tests and interprets results if required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control and other systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulp and paper operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Leading and managing team processes
- Understanding of resource and planning requirements
- Detailed knowledge of system, processes and associated services sufficient for problem solving including:

REQUIRED SKILLS AND KNOWLEDGE

- plant layout
- theory of operation
- causes and effects of adjustments made to equipment and processes
- relationships between system, processes and associated services
- effects of process variables on production and quality
- An appropriate range of problem solving methodologies
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Plant operation and control mechanisms
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control pulp and paper operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in solving systemic problems in the workplace

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in solving systemic problems in the workplace

Access to the full range of equipment involved in integrated continuous manufacturing in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Type and extent of the problem may include:

- quality or equipment problem
- position/location of defect or problem
- continuous or intermittent
- deterioration
- how long has it been occurring
- when/who first observed the problem
- paper quality

Problem solving activities and methodologies may include:

- industry specific methodologies:
 - e-learning tool
 - lean
- root cause analysis techniques
 - 5 whys
 - fish bone
 - sirf roundtable method
 - cause and effect diagrams
 - six sigma

RANGE STATEMENT

- Contingencies may include:
 - Kepner - Tregoe
 - prioritised list of other possible solutions
 - back up plans
- Resources may include:
 - personnel
 - equipment
 - production process
 - materials or supplies
 - trouble shooting guides
- Operations may include:
 - coating systems
 - handling and preparing primary resources
 - steam generation
 - electrical power generation
 - handling and preparing waste paper for pulp production
 - waste paper operations
 - pulping operations
 - chemical recovery operations
 - finishing and converting
 - stock preparation operations
 - wet end operations
 - dry end operations
 - water services
- Equipment may include:
 - communication equipment and 2-way radios
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to plant operations and systems
- Electronic control systems may include:
 - Digital Control Systems (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
 - OHS and environmental requirements (local, state and commonwealth)
 - statutory requirements (local, state and commonwealth)
 - relevant operator licences and endorsements
- Documentation, procedures and reports may include:
 - SOP
 - quality procedures

RANGE STATEMENT

- environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
 - Material Safety Data Sheets (MSDS)
 - furnish sheets
 - tally sheets
 - process and instrument diagrams
 - process improvement systems
 - planning documents
 - small group presentations
 - minutes of meeting
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Sampling and testing may include:
- stock consistency
 - stock colour
 - stock brightness
 - water quality
 - waste paper quality
 - visual assessments
 - stickies
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - maintenance services
 - operational management
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement

RANGE STATEMENT

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPPRV210A Operate ancillary equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to operate ancillary equipment which supports production operations in the pulp and paper industry. It applies to stand-alone items of equipment which require separate operation, knowledge and skills to the operation of the main production unit or machine. The ancillary equipment may be remote from the main production unit or machine, in close proximity or attached (not a part of the main operating production unit or machine)

This unit does not apply where the relevant ancillary equipment is minor and is integral to the main unit or machine process

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who prepare, start up, monitor and shut down ancillary equipment in the pulp and paper industry. This work typically involves complex and non-complex equipment which may either operate continuously or operates intermittently

This unit generally applies to those who:

- prepare and start up ancillary equipment
- monitor and control ancillary equipment, and
- shut down ancillary equipment

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare and start up ancillary equipment	1.1. Ancillary equipment is prepared and started up within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Isolations are removed as required 1.3. Ancillary equipment is prepared for startup 1.4. Ancillary equipment is started up as required
2. Monitor and control ancillary equipment	2.1. Ancillary equipment is monitored and controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Ancillary equipment is monitored to ensure operations are within parameters as per site requirement 2.3. Variations from operating parameters are identified, rectified and/or reported 2.4. Operator level preventative maintenance is undertaken as required 2.5. Changes to ancillary equipment operations are communicated to relevant personnel as required
3. Shut down ancillary equipment	3.1. Ancillary equipment is shut down within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 3.3. Cause of unplanned shutdown is identified and effects are assessed to determine impact on operations and/or facility 3.4. Unplanned shutdown is responded to and rectified 3.5. Unplanned shutdown is communicated as required 3.6. Planned shutdown is implemented 3.7. Isolation requirements are implemented as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in operating ancillary equipment
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and interprets computer-based information
- Uses electronic control systems to control equipment and processes as required
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Plans and organises startup and shutdown
- Maintains situational awareness in the work area
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to operating ancillary equipment including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Problem-solving techniques consistent with level of responsibility
- Working knowledge of ancillary equipment, processes, layout and associated services sufficient to carry out start up, monitoring and shut down activities within level of responsibility
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety of ancillary equipment
- Quality requirements
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments to operate ancillary equipment, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in operating ancillary equipment

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating ancillary equipment

Access to the full range of equipment involved in integrated continuous manufacturing in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

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performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Systems and functions may include:

- air compressor
- air dryer
- air make-up units
- monitoring systems
- air handling units
- building ventilation systems
- line dust collection systems
- dust scrubber systems
- heating, ventilating and air conditioning (HVAC) systems
- core machine
- lubrication

Materials and supplies may include:

- chemicals
- compressed air
- water
- electricity
- gas

RANGE STATEMENT

- Equipment may include:
- steam
 - additives
 - ropes and belts
 - fully automated, semi-automated, manually operated ancillary equipment appropriate to site process
 - fans
 - burners
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - computer systems
 - electronic screens and alarms
 - process control systems
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks may include:
- gas leaks
 - fires
 - nip points
 - compressed air
 - hot surfaces
 - electrical
 - entanglement
 - slip hazards/falls
 - energy
 - pressures
 - chemicals
 - fumes
 - confined spaces
 - dust
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
- Documentation, procedures and reports may include:
- SOP
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals

RANGE STATEMENT

- confined space requirements
 - vendor documentation
 - reference manual
 - product specifications
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - housekeeping
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - maintenance logs
 - job sheets
 - operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- monitoring
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians

RANGE STATEMENT

- location of equipment
 - product
 - hazards
 - obstructions
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPRV320A Co-ordinate and direct clothing changes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and direct clothing changes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and direct clothing changes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- prepare machine and equipment for clothing change
- remove and install machine clothing, and
- prepare machine section for production

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare machine and equipment for clothing change	1.1. Machine and equipment are prepared for clothing change within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Clothing problems causing production issues are identified 1.3. Clothing change need is determined 1.4. New clothing to be installed is identified 1.5. Isolation/lock outs and equipment for clothing change are prepared 1.6. Crew are directed to prepare new clothing as required 1.7. Machine shut and isolation/lockouts are confirmed as required 1.8. Clothing removal is prepared as required
2. Remove and install machine clothing	2.1. Machine clothing is removed and installed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Machine clothing is removed as required 2.3. Machine parts are dismantled or removed as required 2.4. Machine clothing is installed as required 2.5. Machine parts are installed or replaced as required 2.6. Isolation/lockouts are removed as required
3. Prepare machine section for production	3.1. Machine section is prepared for production within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Clothing section is inspected for potential hazards 3.3. Clothing is tensioned to operating requirements 3.4. Clothing guiding system is checked to operating requirements

ELEMENT**PERFORMANCE CRITERIA**

3.5. Clothing details are recorded as required

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and directing clothing changes
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Uses electronic control systems to control equipment and processes as required
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Plans and organises clothing changes
- Directs crews during clothing change
- Recognises clothing problems
- Maintains situational awareness in the work area
- Applies manual handling techniques
- Operates high risk and (non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to co-ordinating and directing clothing changes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of machine, plant, processes and associated services insofar as they relate to clothing changes including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to processes
 - relationships between plant, processes and associated services

REQUIRED SKILLS AND KNOWLEDGE

- Problem-solving techniques consistent with level of responsibility
- Quality requirements
- Clothing properties
- Clothing problems and impact on productivity and quality
- Application of high risk (and non-high risk) load shifting equipment as required
- Manual handling risks and techniques
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments for clothing changes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and directing clothing changes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in co-ordinating and directing clothing changes

Access to the full range of equipment involved in integrated continuous manufacturing in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Systems and functions may include:

- isolations
- crane operation

Materials, supplies and stock may include:

- clothing
- ropes

Equipment may include:

- crane
- slings
- frames
- computer systems
- electronic screens and alarms
- process control systems

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens

Clothing problems may include:

- end of life
- score mark
- hole/tear

RANGE STATEMENT

- trial clothing
 - failed seam
 - crease
 - narrow
 - blind
 - scold mark
 - compacted
 - scorched
- Hazards and risks may include:
- steam and/or gas leaks
 - fires
 - nip points
 - compressed air
 - hot surfaces
 - slippery surfaces
 - heights
 - electrical
 - entanglement
 - slip hazards/falls
 - energy
 - pressures
 - manual handling
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - risk assessments
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - confined space requirements
 - vendor documentation
 - reference manual
 - grade specifications
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - housekeeping
 - safe work documentation e.g. plant clearance,

RANGE STATEMENT

- job safety analysis, permit systems
 - maintenance logs
 - job sheets
 - operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstructions
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face,

RANGE STATEMENT

- handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPUL210A Monitor and control pulping operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control pulping operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control pulping operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control processes
- monitor and maintain the plant, and
- record and report process data

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying pulping plant operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and control processes	1.1. Processes are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan day's activities as required 1.3. Operational status is confirmed by inspection, observations and other information 1.4. Supplies and supply systems are monitored to ensure availability and suitability 1.5. Sampling and testing is conducted 1.6. Storage levels are monitored and controlled 1.7. Process variables are monitored and controlled to ensure efficient operation 1.8. Discharges are monitored to meet environmental requirements
2. Monitor and maintain plant	2.1. Plant is monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Plant variations are interpreted and actioned if required 2.3. Plant inspections are undertaken to maintain production 2.4. Test equipment is calibrated and maintained if required 2.5. Plant adjustments are made to maintain production and quality schedules 2.6. Operator level preventative maintenance schedules are carried out as required
3. Record and report process data	3.1. Process data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Process data is interpreted and recorded 3.3. Process problems and equipment faults are reported 3.4. Problems or variations with systems or product are communicated to relevant personnel 3.5. Hazardous conditions are documented and

ELEMENT**PERFORMANCE CRITERIA**

- communicated to relevant personnel
- 3.6. Problems with environmental releases are recorded and reported as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling pulping operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Carries out operator level maintenance as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulping operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Causes and effects of process variation between upstream and downstream customers
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing processes for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Pulping in-process tests and procedures

REQUIRED SKILLS AND KNOWLEDGE

- Working knowledge of pulping plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory and other information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the pulping operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling pulping operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in pulping operations

Access to the full range of equipment involved in integrated continuous manufacturing of pulping plant operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Operational parameters may include:

- flows
- temperatures
- pressures
- through put
- consistencies
- amps
- set points
- valve settings
- levels
- interlocks

Storage levels may include:

- vats
- chests
- silos
- tanks
- bins
- piles

Pulping processes - chemical, mechanical and semi-chemical pulping may include:

- bleaching plant operations
- refining
- chip preparation
- cleaning or washing systems
- chemical preparation and treatment
- pulp lapping production
- stock distribution and storage
- digester operations
- mechanical pulping systems

Products of these processes may include:

- bleached or unbleached pulp
- fluff pulp
- crumbed pulp
- baled, rolled or sheet pulp
- slushed pulp

Materials and supplies may include:

- woodchips
- pulp
- steam
- water
- chemicals
- power

Equipment may include:

- power and steam systems
- hydraulic and electrical systems
- chemical delivery and processing systems
- conveyors and pump distribution equipment

RANGE STATEMENT

- pneumatic systems
 - process plant
 - materials handling equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to pulping operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - as applicable, activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - relevant endorsed licences
 - hazardous chemical handling
 - air and gas discharges
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - work instructions or purchase orders
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - log sheets and shift reports
 - work orders
 - delivery or distribution documentation
 - tally or production records
 - incident reports
 - Materials Safety Data Sheets (MSDS)
 - process and instrumentation diagrams

RANGE STATEMENT

Maintenance may include:

- operator level maintenance as per site agreement
- operator maintenance schedules
- calibrating test equipment
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

RANGE STATEMENT

- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal or external
 - customers and suppliers
 - team members
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPUL250A Store and distribute pulped product

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to store and distribute pulped product in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who store and distribute pulped product in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- prepare for handling operations
- load, unload, transport and store product, and
- document and report product information

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for handling operations	1.1. Preparation for handling operations is completed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Handling requirements are identified and confirmed 1.3. Work areas are prepared 1.4. Equipment pre-operation checks are conducted 1.5. Availability of required materials is confirmed
2. Load and unload product	2.1. Product is loaded and unloaded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Safe working loads are identified 2.3. Product is directly loaded or unloaded from the production line 2.4. Non-conformance product is identified, isolated and appropriately actioned
3. Transport and store product	3.1. Product is transported and stored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product is transported to an appropriate storage facility 3.3. Product is stored in approved configurations and in relevant stock locations
4. Document and report product information	4.1. Product information is documented and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Inventory records are compiled and verified 4.3. Product is appropriately identified as required 4.4. Product information is communicated to relevant personnel as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in storing and distributing pulped product
- Reads and interprets required documentation, procedures and reports
- Identifies internal and external suppliers
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies non-conformance loads and takes appropriate action
- Identifies and monitors process control points
- Maintains situational awareness work area
- Handles product to minimise damage
- Stores product in appropriate locations
- Operates manual or materials handling equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Conducts routine maintenance of equipment
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to storage and distribution of pulped product operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of pulping plant, processes, layout and associated services sufficient to carry out storage and distribution activities within level of responsibility
- Storage and inventory systems
- Traffic flows and work area conditions
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the storage and distribution of pulped product within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in storing and distributing pulped product

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in storing and distributing pulped product

Access to the full range of equipment involved in storage and distribution of pulped product in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Operational parameters may include:
- machine/process production rate
 - flows
 - temperatures
 - pressures
 - through put
 - consistencies
 - amps
 - set points
 - valve settings
 - levels
 - interlocks
- Storage levels may include:
- vats
 - chests
 - silos
 - tanks
 - bins
 - piles
- Pulping processes - chemical, mechanical and semi-chemical pulping may include:
- bleaching plant operations
 - refining
 - chip preparation
 - cleaning or washing systems
 - chemical preparation and treatment
 - pulp lapping production
 - stock distribution and storage
 - digester operations
 - mechanical pulping systems
- Products of these processes may include:
- bleached or unbleached pulp
 - fluff pulp
 - crumbed pulp
 - baled, rolled or sheet pulp
 - slushed pulp
- Materials and supplies may include:
- woodchips
 - pulp
 - steam
 - water
 - chemicals
 - power
- Equipment may include:
- power and steam systems
 - hydraulic and electrical systems
 - chemical delivery and processing

RANGE STATEMENT

- conveyors and pump distribution equipment
 - pneumatic systems
 - process plant
 - materials handling equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to pulping operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - relevant endorsed licences
 - hazardous chemical handling requirements
 - air and gas discharge requirements
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - work instructions or purchase orders
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - log sheets and shift reports
 - work orders
 - delivery or distribution documentation
 - tally or production records
 - incident reports
 - Materials Safety Data Sheets (MSDS)
 - process and instrumentation diagrams

RANGE STATEMENT

- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - calibrating test equipment
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal or external
 - customers and suppliers
 - team members
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face,

RANGE STATEMENT

handover

- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPUL320A Prepare and start up pulping system operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up pulping system operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up pulping system operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup
- start up operations, and
- establish and stabilise the production and quality process

to meet safety, quality and productivity requirements

It does not include shutting down, monitoring, controlling or troubleshooting and rectifying pulping plant operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	1.1. Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Grade type and flow rate for production are determined and communicated to relevant personnel 1.3. Availability of supplies to meet production requirements are determined and communicated to relevant personnel 1.4. Readiness and availability of facilities to receive process product and/or by-products is confirmed
2. Inspect and prepare systems for startup	2.1. Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-startup checks are completed 2.3. Operational settings are made and confirmed 2.4. Delivery systems are set for operation 2.5. Monitoring devices and alarm systems are checked and confirmed operational 2.6. Identified faults are rectified 2.7. Production ready status is confirmed with relevant personnel
3. Start up operations	3.1. Startup operations are completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Pulping systems are activated and confirmed operational 3.3. Equipment startups are co-ordinated for production 3.4. Process operation is communicated to relevant personnel 3.5. Production startup is logged, recorded or filed as required
4. Establish and stabilise the production and quality process	4.1. Production and quality process is established and stabilised within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Pulping operation is monitored and adjusted to

ELEMENT**PERFORMANCE CRITERIA**

- rectify variations from specifications
- 4.3. Samples are taken as required and appropriately actioned
- 4.4. Product tests are verified as within specification where applicable
- 4.5. System operation, production and quality data is logged, recorded or filed as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up pulping system operations
- Reads and interprets required documentation, procedures and reports
- Confirms production ready status with team members, suppliers and customers
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Recognises when raw materials, equipment and personnel are available
- Conducts pre-startup checks of plant and equipment including instrumentation
- Removes isolations
- Determines pulping production requirements
- Conducts checks to ensure pulp, about to be produced, can be used or stored
- Activates and confirms operation of plant
- Takes samples, conducts tests, interprets and records results, if required
- Uses measuring equipment as required
- Maintains situational awareness in the work area
- Operates manual or materials handling equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

- Procedures, regulations and legislative requirements relevant to pulping operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Roles and responsibilities of relevant personnel and customers
- Relationships within the pulping area members and with the area's suppliers and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and affects of operational equipment faults
- Working knowledge of pulping plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Purpose of the process controls and how the changes affect the production variables
- Purpose of each of the steps in the preparation of the pulping operation for production
- Purpose of each component of the pulping operation
- Process control points of the preparation for startup procedure
- Process control points of the monitoring process during startup
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the pulping plant, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up pulping operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in pulping operations

Access to the full range of equipment involved in integrated continuous manufacturing of pulping plant operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Operational parameters may include:

- flows
- temperatures
- pressures
- through put
- consistencies
- amps
- set points
- valve settings
- levels
- interlocks

Storage levels may include:

- vats
- chests
- silos
- tanks
- bins
- piles

Pulping processes - chemical, mechanical and semi-chemical pulping may include:

- bleaching plant operations
- refining
- chip preparation
- cleaning or washing systems
- chemical preparation and treatment
- pulp lapping production
- stock distribution and storage
- digester operations
- mechanical pulping systems

Products of these processes may include:

- bleached or unbleached pulp
- fluff pulp
- crumbed pulp
- baled, rolled or sheet pulp
- slushed pulp

Materials and supplies may include:

- woodchips
- pulp
- steam
- water
- chemicals
- power

Equipment may include:

- power and steam systems
- hydraulic and electrical systems
- chemical delivery and processing
- conveyors and pump distribution equipment

RANGE STATEMENT

- pneumatic systems
 - process plant
 - materials handling equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to pulping operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - relevant endorsed licences
 - hazardous chemical handling
 - air and gas discharges
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - work instructions or purchase orders
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - log sheets and shift reports
 - work orders
 - delivery or distribution documentation
 - tally or production records
 - incident reports
 - Materials Safety Data Sheets (MSDS)

RANGE STATEMENT

- Maintenance may include:
- process and instrumentation diagrams
 - operator level maintenance as per site agreement
 - operator maintenance schedules
 - calibrating test equipment
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal or external
 - customers and suppliers
 - team members
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings

RANGE STATEMENT

- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPUL330A Co-ordinate and implement pulping plant shutdowns

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and implement pulping plant shutdowns in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and implement pulping plant shutdowns in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess causes and effects of shutdown
- implement shutdown procedures, and
- record and report shutdown information

to meet safety, quality and productivity requirements

It does not include starting up, monitoring, controlling or troubleshooting and rectifying pulping plant operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess causes and effects of shutdown	1.1. Causes and effects of shutdown operations are assess within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Unplanned shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Planned shutdown is implemented 2.3. Unplanned shutdown is responded to and rectified 2.4. Isolation requirements are implemented as required 2.5. Shutdown information is communicated to relevant personnel as required
3. Record and report shutdown information	3.1. Shutdown information is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and implementing a

REQUIRED SKILLS AND KNOWLEDGE

pulping plant shutdown

- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Identifies and monitors process control points
- Maintains situational awareness in work area
- Uses measuring equipment as required
- Operates manual or materials handling equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulping plant operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Causes and effects of system faults and rectification requirements
- Impact of inappropriate responses
- Working knowledge of pulping plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Types, causes and effects of pulping plant shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the pulping operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and implementing pulping plant shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in pulping operations.

Access to the full range of equipment involved in integrated continuous manufacturing of pulping plant operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel

EVIDENCE GUIDE

- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee

RANGE STATEMENT

- Operational parameters may include:
- per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
 - flows
 - temperatures
 - pressures
 - through put
 - consistencies
 - amps
 - set points
 - valve settings
 - levels
 - interlocks
- Storage levels may include:
- vats
 - chests
 - silos
 - tanks
 - bins
 - piles
- Pulping processes - chemical, mechanical and semi-chemical pulping may include:
- bleaching plant operations
 - refining
 - chip preparation
 - cleaning or washing systems
 - chemical preparation and treatment
 - pulp lapping production
 - stock distribution and storage
 - digester operations
 - mechanical pulping systems
- Products of these processes may include:
- bleached or unbleached pulp
 - fluff pulp
 - crumbed pulp
 - baled, rolled or sheet pulp
 - slushed pulp
- Materials and supplies may include:
- woodchips
 - pulp
 - steam
 - water
 - chemicals
 - power

RANGE STATEMENT

Equipment may include:

- power and steam systems
- hydraulic and electrical systems
- chemical delivery and processing
- conveyors and pump distribution equipment
- pneumatic systems
- process plant
- materials handling equipment
- hand and power tools
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to pulping operations

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements
- relevant endorsed licences
- hazardous chemical handling
- air and gas discharges
- safety instructions

Documentation, procedures and reports may include:

- SOP
- work instructions or purchase orders
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- log sheets and shift reports

RANGE STATEMENT

- Maintenance may include:
- work orders
 - delivery or distribution documentation
 - tally or production records
 - incident reports
 - Materials Safety Data Sheets (MSDS)
 - process and instrumentation diagrams
 - operator level maintenance as per site agreement
 - operator maintenance schedules
 - calibrating test equipment
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal or external
 - customers and suppliers
 - team members
 - maintenance services
 - operational management
 - statutory authorities

RANGE STATEMENT

- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPPUL440A Troubleshoot and rectify pulping processes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify pulping processes in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify pulping processes in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse the causes of faults
- rectify plant and product quality faults, and
- record and report process performance and product quality data

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or shutting down pulping plant operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of faults	1.1. Causes of faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Alarms are interpreted to determine fault type and location 1.3. Sampling and testing results are interpreted to identify variations from specifications or schedule 1.4. Cause and source of fault is identified and located using appropriate diagnostic procedures 1.5. Relevant sources of information are accessed and interpreted to assist analysis
2. Rectify plant faults	2.1. Plant faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Operator level on-line adjustments are conducted 2.3. Plant is shut down and isolation procedures are implemented prior to fault rectification 2.4. Faulty plant is isolated, by-passed, repaired or replaced as required 2.5. Plant is returned to normal operation 2.6. Verification is communicated to relevant personnel
3. Rectify product quality faults	3.1. Product quality faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Quality faults or variations are identified by observation, systematic sampling and testing 3.3. Test results are interpreted and operations adjusted to correct faults 3.4. Faults and causes are rectified if appropriate, or recommendations made for further action 3.5. Out-of-specification product is managed
4. Record and report process performance and product quality data	4.1. Process performance and product quality data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements

ELEMENT	PERFORMANCE CRITERIA
	4.2. Variations from specification of product are documented
	4.3. Process variation and faults are recorded
	4.4. Actions undertaken to troubleshoot and rectify faults are recorded
	4.5. Relevant information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in troubleshooting and rectifying pulping processes
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Assists others to identify and resolve operational problems in the workplace
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Identifies, accesses and interprets relevant historical and operational data and information
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Maintains situational awareness in the work area
- Handles emergencies or crash shutdowns
- Operates high risk (and non-high risk) load shifting equipment as required
- Uses electronic and other control systems to control equipment and processes as required

REQUIRED SKILLS AND KNOWLEDGE

- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity

Required knowledge

- Procedures, regulations and legislative requirements relevant to pulping operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Use and handling requirements of chemicals used; their purpose, effects, MSDS and SOP
- Relevant forms of communication
- Detailed knowledge of pulping plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to pulping plant and processes
 - relationships between pulping plant, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Maintenance system as it applies to pulping operations
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control pulping operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate Evidence should be relevant to the work. It should satisfy the requirements of the elements and

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competency in this unit

performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying pulping processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in pulping operations

Access to the full range of equipment involved in integrated continuous manufacturing of pulping plant operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment

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for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Operational parameters may include:

- flows
- temperatures
- pressures
- through put
- consistencies
- amps
- set points
- valve settings

RANGE STATEMENT

- levels
- interlocks

RANGE STATEMENT

Storage levels may include:

- vats
- chests
- silos
- tanks
- bins
- piles

Pulping processes - chemical, mechanical and semi-chemical pulping may include:

- bleaching plant operations
- refining
- chip preparation
- cleaning or washing systems
- chemical preparation and treatment
- pulp lapping production
- stock distribution and storage
- digester operations
- mechanical pulping systems

Products of these processes may include:

- bleached or unbleached pulp
- fluff pulp
- crumbed pulp
- baled, rolled or sheet pulp
- slushed pulp

Materials and supplies may include:

- woodchips
- pulp
- steam
- water
- chemicals
- power

Equipment may include:

- power and steam systems
- hydraulic and electrical systems
- chemical delivery and processing
- conveyors and pump distribution equipment
- pneumatic systems
- process plant
- materials handling equipment
- hand and power tools
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to

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- pulping operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - relevant endorsed licences
 - hazardous chemical handling
 - air and gas discharges
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - work instructions or purchase orders
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - log sheets and shift reports
 - work orders
 - delivery or distribution documentation
 - tally or production records
 - incident reports
 - Materials Safety Data Sheets (MSDS)
 - process and instrumentation diagrams
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - calibrating test equipment
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility

RANGE STATEMENT

Communications may include

interaction with:

- internal or external
- customers and suppliers
- team members
- maintenance services
- operational management
- statutory authorities

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPQAS210A Apply basic quality practices

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to apply basic quality practices in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit This unit applies to operators who apply basic quality practices in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- interpret and apply quality standards and procedures
- monitor control points, and
- conduct corrective action

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Interpret and apply quality standards and procedures	1.1. Quality standards and procedures are interpreted and applied within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Quality standards and procedures are interpreted and applied to individual and teamwork in accordance with standard
2. Monitor control points	2.1. Control points are monitored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Production information, based on inspections, set point values and/or testing is interpreted to maintain specified product quality 2.3. The need for corrective action is prioritised
3. Conduct corrective action	3.1. Corrective action is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Adjustments are made according to SOP 3.3. Out-of-standard performance is identified and reported within the organisation's communication system 3.4. Routine inspections, process variable values and/or test information is recorded accurately in the reporting system according SOP 3.5. Non-conforming product is treated according to SOP 3.6. Faulty equipment is identified and reported according to SOP

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills

- Uses required forms of communication in applying basic quality practices
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Records inspections, process variable values and/or test information in the reporting/recording system
- Identifies and actions problems within level of responsibility
- Identifies process control points for a specific task and/or activity
- Prioritises work station's process control points for checking and maintaining quality
- Monitors and interprets information in relation to process control points
- Outlines the limits of acceptance for each inspection, set point value and/or test
- Identifies out-of-standard performance and/or product
- Prioritises the need for corrective action based on potential risk or loss or damage if the required actions are not performed
- Makes adjustments to processes in order to maintain specified product quality
- Identifies treats out-of-standard product according to SOP

Required knowledge

- Procedures, regulations and legislative requirements relevant to applying basic quality practices including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Purpose of inspections, set point values and/or testing that is conducted in order to maintain specified product quality
- Steps taken in undertaking corrective actions

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in applying basic quality practices

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in applying basic quality practices

Access to the full range of equipment involved in applying basic quality practices in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

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performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- | | |
|--|---|
| Monitoring and reporting | <ul style="list-style-type: none"> • will typically involve the use and presentation of verbal and written information; the latter in standard format |
| Recording may be: | <ul style="list-style-type: none"> • by manual and/or electronic methods in standard format |
| Legislation, regulatory, licensing and certification requirements may include: | <ul style="list-style-type: none"> • OHS and environmental requirements (local, state and commonwealth) |
| Documentation, procedures and reports may include: | <ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures • ISO9000 • oil or chemical spills and disposal guidelines • plant isolation documentation |

RANGE STATEMENT

- Actions may include:
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include:
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPQAS420A Co-ordinate in-process quality assurance

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to co-ordinate in-process quality assurance in the pulp and paper industry. General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement.

Application of the Unit

Application of the unit This unit applies to operators who co-ordinate in-process quality assurance in the pulp and paper industry within company quality assurance policy, practices and procedures. This work typically involves complex integrated equipment and continuous operations.

This unit generally applies to those who:

- identify and monitor critical control points in-process system, and
- monitor performance in the process system

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and monitor critical control points in-process system	<p>1.1. Critical control points in the in-process system are identified and monitored within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Critical control points in the in-process system are identified to determine priorities for checking and maintaining quality</p> <p>1.3. Performance is monitored at each critical control point in the in-process system to assure quality and to identify need for corrective action</p>
2. Monitor performance in the process system	<p>2.1. Performance in the process system is monitored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Product and process is monitored within the in-process quality assurance system and adjusted to achieve performance within standards</p> <p>2.3. Relevant performance criteria is communicated to enable the required action to be taken</p> <p>2.4. Product is inspected and action taken</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating in-process quality assurance
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Identifies the critical control points in the process system
- Identifies options to rectify problems
- Identifies and actions problems within level of responsibility

REQUIRED SKILLS AND KNOWLEDGE

- Identifies product and process trends from in-process inspections and/or test results

Required knowledge

- Procedures, regulations and legislative requirements relevant to co-ordinating in-process quality assurance including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Action to be taken when actual and/or emerging performance is outside specification limits
- Quality assurance problems that need to be addressed
- Contents of inspection and/or test schedules
- Implication of inadequate attention to monitoring process and product quality
- Roles, responsibilities and steps necessary to isolate and quarantine suspect product
- Importance of maintaining equipment and instrument calibration
- The potential environmental impact of out-of-standard performance to their customers

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating in-process quality assurance

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in co-ordinating in-process quality assurance

Access to the full range of equipment involved in co-ordinating in-process quality assurance in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- | | |
|--|---|
| Company instructions | <ul style="list-style-type: none"> • will be provided for sampling and in-process inspection and testing activities |
| Monitoring and reporting will typically involve: | <ul style="list-style-type: none"> • the use and presentation of verbal and written information; the latter in standard format |
| Recording may be: | <ul style="list-style-type: none"> • by manual and/or electronic methods in standard format |
| Legislation, regulatory, licensing and certification requirements may include: | <ul style="list-style-type: none"> • OHS and environmental requirements (local, state and commonwealth) |
| Documentation, procedures and reports may include: | <ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures |

RANGE STATEMENT

- ISO9000
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPQAS430A Oversee quality assurance process

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to oversee quality assurance process in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who oversee quality assurance process in the pulp and paper industry within company quality assurance policy, practices and procedures. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor inspection and test records
- review product samples
- implement process changes, and
- create and/or up-date operating instructions

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor inspection and test records	1.1. Inspection and test records are monitored within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Inspection and test records are monitored to verify product quality and to identify performance trends 1.3. Status reports contain a description of proposals to introduce improved processes and procedures
2. Review product samples	2.1. Product samples are reviewed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Product samples are reviewed to ensure inspection and/or test data accurately reflects output 2.3. Post collection procedures are implemented according to standard operating procedures
3. Implement process changes	3.1. Process changes are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Process changes are introduced and controlled so that quality assurance requirements are accomplished
4. Create and/or update operating instructions	4.1. Instructions are created and/or updated within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Operating instructions are written so that they comprehensively document the details required for competent performance 4.3. Operating instructions are validated under operating conditions to verify their suitability

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication to oversee quality assurance processes
- Reads and interprets required documentation, procedures and reports
- Prepares process and product status report recommending changes to improve processes and procedures
- Creates and/or updates SOP or their equivalent
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Assembles in-process inspection/test and other quality data in prescribed format
- Interprets results of in-process inspections and/or tests
- Identifies trends of in-process inspection and/or test results
- Records sample review results in prescribed format
- Identifies risks associated with samples and how they may be minimised
- Implements a change in the process
- Identifies the actual or potential risks associated with uncontrolled changes in procedures

Required knowledge

- Procedures, regulations and legislative requirements relevant to overseeing quality assurance processes including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Basic problem-solving techniques consistent with level of responsibility
- Actual or potential problems evident from trend analysis
- Appropriate course/s of action to rectify problems
- Purpose of review process
- Post collection and procedure for handling samples
- Importance of change control
- Controls associated with a procedure change
- Purpose of SOP
- Actual or potential problems if SOP or their equivalent are non-existent
- Potential environmental impact of out-of-standard performance to their customers

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in overseeing quality assurance processes

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in overseeing quality assurance processes

Access to the full range of equipment involved in overseeing quality assurance processes in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- | | |
|--|--|
| Company instructions | <ul style="list-style-type: none"> • will be provided for sampling and in-process inspection and testing activities |
| Monitoring and reporting | <ul style="list-style-type: none"> • will typically involve the use and presentation of verbal and written information; the latter in standard format |
| Recording may be: | <ul style="list-style-type: none"> • by manual and/or electronic methods in standard format |
| Documentation, procedures and reports may include: | <ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • enterprise policies and procedures • ISO9000 • oil or chemical spills and disposal guidelines • plant isolation documentation • safe work documentation e.g. plant clearance, |

RANGE STATEMENT

- job safety analysis, permit systems
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinators
 - maintenance services
 - operational support personnel
 - operational management
 - statutory authorities
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPREC210A Monitor and control chemical recovery operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to monitor and control chemical recovery operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who monitor and control chemical recovery operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control processes
- monitor and maintain plant, and
- record and document performance data

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying chemical recovery operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and control processes	1.1. Processes are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan day's activities as required 1.3. Operational status is confirmed by inspection, observations and other information 1.4. Supplies and supply systems are monitored and controlled to ensure availability and suitability 1.5. Required sampling and testing is conducted 1.6. Production and by-product storage is monitored and controlled 1.7. Process variables are monitored and controlled to ensure efficient operation 1.8. Operator level preventative maintenance schedules are carried out as required 1.9. Discharges are monitored and controlled
2. Monitor and maintain plant	2.1. Plant is monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Process problems and equipment faults are identified 2.3. Process problems and equipment faults are rectified within limits of responsibility 2.4. Plant inspections are undertaken to optimise plant performance 2.5. Processes and equipment adjustments are made to optimise production and quality schedules and to comply with environmental licences
3. Record and document performance data	3.1. Performance data is recorded and documented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Process and plant data is interpreted and recorded 3.3. Process problems and equipment faults are reported 3.4. Problems or variations with systems or product are communicated to relevant personnel 3.5. Hazardous conditions are documented and

ELEMENT**PERFORMANCE CRITERIA**

- communicated to relevant personnel
- 3.6. Problems with environmental releases are recorded and reported as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling chemical recovery operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Identifies and monitors process control points
- Carries out operator level maintenance as required
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to chemical recovery operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing processes for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements

REQUIRED SKILLS AND KNOWLEDGE

- Chemical recovery in-process tests and procedures
- Working knowledge of chemical recovery plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the chemical recovery operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling chemical recovery operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in chemical recovery operations

Access to the full range of equipment involved in chemical recovery operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Chemical recovery processes may include:
- machine/process production rate
 - evaporator operations
 - condensate stripper
 - lime mud treatment
 - Wet Air Oxidation (WAO)
 - causticising plant operations
 - recovery boiler operations
 - direct alkali reduction system (DARS operations)
 - foul gas and condensate incineration
- Chemicals may include:
- white liquor
 - green liquor
 - black liquor
 - condensates
 - non-condensable gases
 - thick liquor
 - spent liquor
 - quench liquor
 - weak wash
 - anthraquinone (AQ)
 - caustic
 - magnesium oxide
 - sulphur

RANGE STATEMENT

Materials and supplies may include:

- steam
- compressed air
- chemicals
- water
- power

Equipment may include:

- power or steam generation
- pneumatic systems
- water supply systems and equipment
- process plant
- pumps and transfer equipment
- mechanical, hydraulic and electrical systems
- process monitoring and management equipment
- mobile equipment (e.g. skid steer, forklift, elevated work platform, loaders)
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to chemical recovery operations

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements
- hazardous chemical handling requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- work instructions and orders
- incident reports
- log sheets and shift reports
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation (e.g. plant clearance, job safety analysis, permit systems)

RANGE STATEMENT

- emergency operational procedures (EMOs)
 - process and instrument diagrams
 - non-conformance reports
- Maintenance may include:
- operator level maintenance as per site agreement
 - maintenance systems
 - operator maintenance schedules
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- team members
 - internal or external customers and suppliers
 - maintenance services
 - production/services co-ordinator
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g.

RANGE STATEMENT

SOP, manuals, checklists, drawings

- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPREC320A Prepare and start up chemical recovery operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up chemical recovery operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up chemical recovery operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements for chemical recovery
- inspect and prepare systems for startup
- start up operations, and
- establish and stabilise the production and quality processes

to meet safety, quality and productivity requirements

It does not include shutting down, monitoring and controlling or troubleshooting and rectifying chemical recovery operations.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements for chemical recovery	1.1. Production requirements for chemical recovery are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Processing rates for production are determined and communicated to relevant personnel 1.3. Availability of incoming supplies to meet production requirements are determined 1.4. Readiness and availability of facilities to receive process product and/or by-products is confirmed
2. Inspect and prepare systems for startup	2.1. Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-startup checks are completed 2.3. Operational settings are made and confirmed against specification requirements 2.4. Delivery systems are set for operation 2.5. Monitoring devices and systems are checked and confirmed operational 2.6. Identified faults are rectified 2.7. Production ready status is confirmed with relevant personnel
3. Startup operations	3.1. Startup operations are completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Systems are activated and confirmed operational 3.3. Equipment startups are co-ordinated for production 3.4. Process operation is communicated to relevant personnel 3.5. Production startup details are recorded as required
4. Establish and stabilise the production and quality processes	4.1. Production and quality processes are established and stabilised within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Chemical recovery systems are monitored and adjusted to rectify variations from specifications 4.3. Samples are taken as required and appropriately

ELEMENT**PERFORMANCE CRITERIA**

actioned

4.4. Product tests are verified as within specification where applicable

4.5. System operation, production and quality data is recorded as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up chemical recovery operations
- Reads and interprets required documentation, procedures and reports
- Confirms production ready status with team members, suppliers and customers
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Responds to faults of process flow-through systems if required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Removes isolations
- Conducts pre-startup checks of plant and equipment including instrumentation
- Determines chemical recovery requirements (e.g. temperatures, oxidation, combustion and evaporation rates) for operation
- Conducts checks to ensure availability of incoming supplies
- Conducts checks to ensure readiness and availability of facilities to receive process product and/or by-products
- Inputs operational settings (e.g. set points) in preparation for startup in accordance with SOP
- Activates and confirms operation of chemical recovery system according to SOP
- Makes process control adjustments to stabilise production and quality
- Conducts routine maintenance checks
- Takes samples, conducts tests, interprets and records results, if required
- Uses measuring equipment as required
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and

REQUIRED SKILLS AND KNOWLEDGE

co-ordinate safety, quality and productivity

- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to chemical recovery operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Relationships within the chemical recovery area members and with the area's suppliers and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and affects of operational equipment faults
- Working knowledge of chemical recovery operations, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Control points of the preparation for startup procedure
- Purpose of the process controls and how the changes affect the operation's variables
- Control points of the startup procedure
- Purpose of each of the steps in the preparation of the chemical recovery system for production
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control chemical recovery operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

EVIDENCE GUIDE

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up chemical recovery operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in chemical recovery operations

Access to the full range of equipment involved in integrated continuous manufacturing of chemical recovery operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and

EVIDENCE GUIDE

terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
 - waste minimisation
 - evaporation minimisation, including landfill and waste water reduction
 - environmentally safe waste disposal
 - consideration of resource utilisation, including fibre efficiency
 - minimising delays
 - chemical recovery maximisation
 - meeting key performance indicators
 - line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Chemical recovery processes may include:
- evaporator operations
 - condensate stripper
 - lime mud treatment
 - Wet Air Oxidation (WAO)

RANGE STATEMENT

- causticising plant operations
 - recovery boiler operations
 - direct alkali reduction system (DARS operations)
 - foul gas and condensate incineration
- Chemicals may include:
- white liquor
 - green liquor
 - black liquor
 - condensates
 - non-condensable gases
 - thick liquor
 - spent liquor
 - quench liquor
 - weak wash
 - anthraquinone (AQ)
 - caustic
 - magnesium oxide
 - sulphur
- Materials and supplies may include:
- steam
 - compressed air
 - chemicals
 - water
 - power
- Equipment may include:
- power or steam generation
 - pneumatic systems
 - water supply systems and equipment
 - process plant
 - pumps and transfer equipment
 - mechanical, hydraulic and electrical systems
 - process monitoring and management equipment
 - mobile equipment (e.g. skid steer, forklift, elevated work platform, loaders)
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to chemical recovery operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:

- robotics
- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) licensing requirements
- hazardous chemical handling

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- work instructions and orders
- incident reports
- log sheets and shift reports
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
- emergency operational procedures (EMOs)
- process and instrument diagrams
- non-conformance reports

Maintenance may include:

- operator level maintenance as per site agreement
- maintenance systems
- operator maintenance schedules
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

RANGE STATEMENT

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- internal or external customers and suppliers
- maintenance services
- production/services co-ordinator
- operational management
- statutory authorities

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPREC330A Co-ordinate and implement chemical recovery shutdowns

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and implement chemical recovery shutdowns in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and implement chemical recovery shutdowns in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess causes and effects of shutdowns
- implement shutdown procedures, and
- record and report shutdown information

to meet safety, quality and productivity requirements

It does not include starting up, monitoring, controlling or troubleshooting and rectifying chemical recovery plant operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess causes and effects of shutdown	1.1. Causes and effects of shutdown are assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Unplanned shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Planned shutdown is implemented 2.3. Unplanned shutdown is responded to and rectified 2.4. Isolation requirements are implemented as required 2.5. Shutdown information is communicated to relevant personnel as required
3. Record and report shutdown information	3.1. Shutdown information is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and implementing

REQUIRED SKILLS AND KNOWLEDGE

chemical recovery shutdowns

- Reads and interprets required documentation, procedures and reports
- Identifies sources of operational data
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Co-ordinates and plans shutdown activity
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to chemical recovery operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Required responses to all unplanned shutdowns to ensure safety, quality and productivity
- Working knowledge of chemical recovery operations, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Effects of shutdowns on the rest of the system
- Types, causes and effects of chemical recovery plant shutdowns
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Impact of inappropriate responses
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control chemical recovery operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and implementing chemical recovery shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in chemical recovery operations

Access to the full range of equipment involved in integrated continuous manufacturing of chemical recovery operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- machine/process production rate

RANGE STATEMENT

Chemical recovery processes may include:

- evaporator operations
- condensate stripper
- lime mud treatment
- Wet Air Oxidation (WAO)
- causticising plant operations
- recovery boiler operations
- direct alkali reduction system (DARS operations)
- foul gas and condensate incineration

Chemicals may include:

- white liquor
- green liquor
- black liquor
- condensates
- non-condensable gases
- thick liquor
- spent liquor
- quench liquor
- weak wash
- anthraquinone (AQ)
- caustic
- magnesium oxide
- sulphur

Materials and supplies may include:

- steam
- compressed air
- chemicals
- water
- power

Equipment may include:

- power or steam generation
- pneumatic systems
- water supply systems and equipment
- process plant
- pumps and transfer equipment
- mechanical, hydraulic and electrical systems
- process monitoring and management equipment
- mobile equipment (e.g. skid steer, forklift, elevated work platform, loaders)
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments

RANGE STATEMENT

- Electronic control systems may include:

 - fully automated, semi-automated, manually operated plant and equipment appropriate to chemical recovery operations
 - Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:

 - OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - hazardous chemical handling
- Documentation, procedures and reports may include:

 - SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - work instructions and orders
 - incident reports
 - log sheets and shift reports
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
 - emergency operational procedures (EMOs)
 - process and instrument diagrams
 - non-conformance reports
- Maintenance may include:

 - operator level maintenance as per site agreement
 - maintenance systems
 - operator maintenance schedules
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:

 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:

 - team members
 - internal or external customers and suppliers

RANGE STATEMENT

- maintenance services
 - production/services co-ordinator
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPREC440A Troubleshoot and rectify chemical recovery operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify chemical recovery operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify chemical recovery operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse causes of faults
- rectify process problems, equipment and product quality faults, and
- record and report system performance and product quality data

to meet safety, quality and productivity requirements

It does not include monitoring, controlling, starting up or shutting down chemical recovery operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of faults	<ul style="list-style-type: none">1.1. Causes of faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements1.2. Warning devices are interpreted to determine fault type and location1.3. Samples for a range of tests are taken1.4. Quality faults and variations are identified by observation, systematic sampling and testing1.5. Sampling and testing results are interpreted to identify variations from specifications or schedule1.6. Causes and sources of process problems or equipment faults are identified, located and analysed1.7. Relevant sources of information are accessed and interpreted to assist analysis
2. Rectify process problems and equipment faults	<ul style="list-style-type: none">2.1. Process problems and equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements2.2. Operator level on-line adjustments are conducted2.3. Plant is shut down and isolation procedures are implemented prior to fault rectification2.4. Hazardous conditions are identified, appropriate action is taken and the conditions communicated to relevant personnel2.5. Faulty equipment is isolated or bypassed, repaired or replaced as required2.6. Plant and equipment are returned to normal operation as required2.7. Action taken is communicated to relevant personnel
3. Rectify product quality faults	<ul style="list-style-type: none">3.1. Product quality is rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements3.2. Out-of-specification product is controlled3.3. Faults and causes are rectified if appropriate, or recommendations made for further action3.4. Further tests are conducted as required
4. Report and record	<ul style="list-style-type: none">4.1. System performance and product quality data is

ELEMENT	PERFORMANCE CRITERIA
system performance and product quality data	reported and recorded within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from process specification are recorded 4.3. Actions undertaken to troubleshoot and rectify faults are recorded 4.4. Details of hazardous conditions or situations are documented as required 4.5. Relevant information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data
- Uses required forms of communication in troubleshooting and rectifying chemical recovery operations
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Prepares detailed written information
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Assists others to identify and resolve operational problems in the workplace
- Accesses, navigates and enters computer-based information
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Maintains situational awareness in the work area
- Handles emergencies or crash shutdowns
- Operates high risk (and non-high risk) load shifting equipment as required

REQUIRED SKILLS AND KNOWLEDGE

- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to chemical recovery operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Use and handling requirements of chemicals used; their purpose, effects, MSDS and SOP
- Relevant forms of communication
- Detailed knowledge of chemical recovery plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to chemical recovery plant and processes
 - relationships between chemical recovery plant, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing processes for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Maintenance system as it applies to chemical recovery operations
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the chemical recovery, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying chemical recovery operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in chemical recovery operations

Access to the full range of equipment involved in integrated continuous manufacturing of chemical recovery operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Chemical recovery processes may include:
- machine/process production rate
 - evaporator operations
 - condensate stripper
 - lime mud treatment
 - Wet Air Oxidation (WAO)
 - causticising plant operations
 - recovery boiler operations
 - direct alkali reduction system (DARS) operations
 - foul gas and condensate incineration
- Chemicals may include:
- white liquor
 - green liquor
 - black liquor
 - condensates
 - non-condensable gases
 - thick liquor
 - spent liquor
 - quench liquor
 - weak wash
 - anthraquinone (AQ)
 - caustic
 - magnesium oxide
 - sulphur
- Materials and supplies may include:
- steam
 - compressed air
 - chemicals
 - water
 - power
- Equipment may include:
- power or steam generation
 - pneumatic systems
 - water supply systems and equipment
 - process plant
 - pumps and transfer equipment
 - mechanical, hydraulic and electrical systems
 - process monitoring and management equipment
 - mobile equipment (e.g. skid steer, forklift, elevated work platform, loaders)

RANGE STATEMENT

- computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to chemical recovery operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
 - hazardous chemical handling
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - work instructions and orders
 - incident reports
 - log sheets and shift reports
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation (e.g. plant clearance, job safety analysis, permit systems)
 - emergency operational procedures (EMOs)
 - process and instrument diagrams
 - non-conformance reports

RANGE STATEMENT

- Maintenance may include:
- operator level maintenance as per site agreement
 - maintenance systems
 - operator maintenance schedules
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- team members
 - internal or external customers and suppliers
 - maintenance services
 - production/services co-ordinator
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry

RANGE STATEMENT

- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPREL210A Contribute to effective working relationships

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to contribute to effective working relationships in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit applies to operators who contribute to effective working relationships in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- communicate with others in course of work
- contribute to teamwork and work standards, and
- resolve conflicts

to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Communicate with others in course of work	<p>1.1. Others are communicated with in course of work within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2. Instructions are attended to, interpreted and implemented</p> <p>1.3. Effective reading and listening skills are demonstrated</p> <p>1.4. Questions are used to gain additional information</p> <p>1.5. Verbal and written communication with others in the performance of duties is clear and precise and follows established communications practice</p> <p>1.6. Misunderstandings in communications are avoided using appropriate confirmation techniques</p> <p>1.7. Various forms of non-verbal communication are appropriately used when working and communicating with others in the course of duties</p>
2. Contribute to teamwork and work standards	<p>2.1. Teamwork and work standards are contributed to within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2. Work is carried out individually and in association with others in accordance with established performance standards</p> <p>2.3. Assistance and encouragement is provided to others in workplace activities</p> <p>2.4. Feedback on work performance is acknowledged, discussed and acted upon</p> <p>2.5. Personal skills and knowledge are developed through training and other means to ensure an effective contribution to work activities</p> <p>2.6. Employment conditions are known, understood and followed</p> <p>2.7. Individual rights and responsibilities are known, understood and fulfilled, including allowance for any cross cultural differences and differences in personal interests, beliefs and lifestyles</p>

ELEMENT	PERFORMANCE CRITERIA
3. Resolve conflicts	<p>2.8. Appropriate action is taken to avoid and prevent harassment of others</p> <p>3.1. Conflicts are resolved within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2. Conflict situations are recognised and appropriate assistance is sought to resolve the conflict with the personnel involved in accordance with company procedures</p> <p>3.3. An appropriate contribution is made to action to solve conflicts by actively participating in conflict resolution procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in contributing to effective relationships
- Reads and interprets required documentation, procedures and reports
- Listens to and interprets verbal instructions and information concerning work activities
- Interprets and applies established communication practices
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies interpersonal problems that may arise and takes appropriate action to resolve identified problems
- Takes action to avoid discrimination and harassment and reports any incidents in accordance with policies and regulations

Required knowledge

- Procedures, regulations and legislative requirements relevant to contributing to effective relationships including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic communication techniques, including barriers to effective communication

REQUIRED SKILLS AND KNOWLEDGE

and how to overcome them

- Conflict resolution and mediation strategies and techniques
- Basic problem-solving techniques consistent with level of responsibility
- Anti-discrimination and harassment policies and regulations
- Industrial award requirements related to personnel responsibilities, obligations and entitlements
- Instructions and procedures for social behaviour and emergency situations
- Principles of effective interaction with co-workers, including recognising differences, active promotion of anti-discrimination and avoidance of harassment

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in contributing to effective working relationships

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in contributing to effective working relationships

Access to the full range of equipment involved in contributing to effective working relationships in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- | | |
|--|--|
| Legislation, regulatory, licensing and certification requirements may include: | <ul style="list-style-type: none"> • OHS and environmental requirements (local, state and commonwealth) • Australian equal employment legislation and related policies • relevant international labour conventions and measures |
| Documentation, procedures and reports may include: | <ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • enterprise policies and procedures • equal employment policies and regulations • work and safety signs and symbols • oil or chemical spills and disposal guidelines • plant isolation documentation • safe work documentation e.g. plant clearance, job safety analysis, permit systems |

RANGE STATEMENT

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service co-ordinators
- maintenance services
- operational support personnel
- operational management
- statutory authorities

Communication problems may include:

- misunderstanding
- limited ability of others to communicate in english
- noisy environments or situations
- illegible writing or print
- use of non-standard terms
- incorrect assumption that message has been received and/or correctly understood

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPRES210A Prepare and operate the woodchip production system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and operate the woodchip production system in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and operate the woodchip production system in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- conduct pre-startup system checks
- start up system for production run
- monitor and maintain chipping system operation
- record and document machine performance and production data, and
- conduct a plant shutdown

to meet safety, quality and productivity requirements

It does not include receiving and unloading materials, distributing woodchips or troubleshooting and rectifying primary resource operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Conduct pre-startup system checks	1.1. Pre-startup system checks are conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. External inspection and pre-operational checks of the woodchip system are carried out 1.3. Operator level maintenance schedules are carried out as required 1.4. Isolations are removed in accordance with site procedures if required 1.5. Monitoring devices and alarm systems are confirmed to be operational 1.6. Relevant personnel are notified of impending startup 1.7. Logs to be processed are identified and loaded to ensure correct presentation
2. Start up system for production run	2.1. System for production run is started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment, conveyors, transfer system and operational monitoring equipment pre-startup checks are carried out 2.3. Transfer equipment, bins and hoppers are checked to ensure prevention of chip contamination as required 2.4. System is started 2.5. Logs are docked as required
3. Monitor and maintain chipping system operation	3.1. Chipping system operation is monitored and maintained within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Logs and conveyors are monitored to achieve optimum flow 3.3. Supply of logs is co-ordinated and maintained to ensure production requirements are met 3.4. Equipment operation is monitored electronically and visually to ensure operating conditions are continually maintained 3.5. Potential blockage and/or jamming situations are identified and appropriate action is taken to rectify

ELEMENT	PERFORMANCE CRITERIA
	3.6. Woodchip quality is continually monitored as required
	3.7. Woodchip transfer to storage system is monitored and maintained
	3.8. Storage levels are monitored and maintained as required
4. Record and document machine performance and production data	4.1. Machine performance and production data is recorded and documented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	4.2. Production and quality records are maintained as required
	4.3. Data is entered into computer system as required
	4.4. Problems or variations are communicated to relevant personnel
5. Conduct a plant shutdown	5.1. Plant shutdown is conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	5.2. Shutdown plan is communicated with relevant personnel
	5.3. Shutdown procedures are carried out
	5.4. Cause of uncontrolled shutdown is identified and rectified
	5.5. Shutdown details are recorded as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and operating the woodchip production system
- Reads and interprets required documentation, procedures and reports
- Prepares written information and enters data to support groups and teams
- Accesses, navigates and enters computer-based information

REQUIRED SKILLS AND KNOWLEDGE

- Responds to video and other monitoring devices and alarms
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Follows equipment maintenance procedures including recognition, checking, fixing and reporting faults
- Identifies and monitors process control points
- Maintains situational awareness in the area
- Maintains chip quality and machine production rate or schedules
- Prepares, starts up, and monitors operations
- Follows procedures for woodchip operation
- Monitors and maintains waste systems
- Coordinates and plans shutdown activity
- Responds to problems associated with plant shutdown and uncontrolled shutdown to ensure safety quality and productivity
- Sets up equipment or plant to specification as required
- Operates high risk (and non-high risk) load shifting equipment as required
- Uses measuring equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to woodchip production operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Quality standard requirements
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Equipment fault identification and corrective action
- Working knowledge of woodchip production system, area layout and associated services sufficient to carry out docking and debarking processes within level of responsibility
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and uncontrolled shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Process and procedures for woodchip production
- Application of high risk (and non-high risk) load shifting equipment as required

REQUIRED SKILLS AND KNOWLEDGE

- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems operation and application to make appropriate adjustments that control the woodchip production system, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and operating woodchip production systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in woodchip production systems

Access to the full range of equipment involved in integrated continuous manufacturing of woodchip production systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or

EVIDENCE GUIDE

simulation that replicate part/s of the job

- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays

RANGE STATEMENT

- chemical recovery maximisation
 - meeting key performance indicators
 - line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Materials and supplies may include:
- hardwood or softwood logs
 - supplies
 - parts
- Equipment may include:
- chipper
 - hogger
 - conveyor feed systems
 - chipscreens
 - hydraulic cutting equipment
 - blades
 - chainsaws
 - magnetic detectors
 - silos
 - hopper and storage systems
 - chip spreaders and slingers
 - front end loader trailer or tipper, articulated loader, tracked dozer/front end loader, forklift, side loader, mobile crane, rigid loader, log loader, straddle truck
 - fork lift attachments, crane hooks, chains, slings and straps, grabs, winches
 - docking saw
 - bark transferring system
 - debarking machinery
 - drying ovens
 - sizing screens
 - video monitoring
 - electronic weighing and measuring equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation

RANGE STATEMENT

- fully automated, semi-automated, manually operated plant and equipment appropriate to the woodchip production system
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - break down tools and equipment
 - electronic communication equipment
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - enterprise policy, procedures and guidelines
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - work orders
 - tally sheets
 - truck delivery dockets
 - invoices
 - non-conformance reports
 - test results and reports
 - log sheets (production/equipment)
 - equipment performance data
 - tonnage, input and conversion
 - sampling and test reports
 - Material Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers

RANGE STATEMENT

- Actions may include:
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- work area personnel
 - internal/external customers and suppliers
 - team members
 - production/service coordinator
 - maintenance service
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPRES250A Distribute woodchips

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to distribute woodchips in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who distribute woodchips in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- plan woodchip distribution
- start up transfer equipment and chip distributor, and
- distribute woodchips to storage facility

to meet safety, quality and productivity requirements

It does not include receiving or unloading materials, preparing and operating the woodchip production system or troubleshooting and rectifying primary resource operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan woodchip distribution	1.1. Woodchip distribution is planned within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Future storage size requirement is estimated from production and distribution schedules 1.3. Filling or distribution patterns are planned to enable maximum woodchip storage 1.4. Requirements for specific sequences in filling deposit areas are identified 1.5. Direction and extent for distribution and contraction is planned and confirmed with relevant personnel 1.6. Chip distribution requirements are estimated considering the reach and limitations of the chip slinging and chip moving equipment
2. Start up transfer equipment and chip distributor	2.1. Transfer equipment and chip distributor is started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-startup checks are completed for conveyors, chip distributor, and wheeled or tracked vehicles 2.3. Isolations are removed 2.4. Deposit areas are checked to ensure clearance for startup 2.5. Other operators are informed of impending startup 2.6. Conveyors and chip spreading processes are started and correct transfer of woodchips is confirmed
3. Distribute woodchips to storage facility	3.1. Woodchips are distributed to storage facility within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Equipment is prepared for distribution of woodchips 3.3. Storage is inspected to identify hazards within the vehicle operational area 3.4. Notice of impending operation is communicated to relevant personnel 3.5. Woodchip distribution is manoeuvred to enable filling or distribution over required area 3.6. Woodchips are distributed to storage facilities

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication for distributing woodchips
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Monitors and controls process control points
- Maintains situational awareness in the work area
- Identifies wood types and grades
- Selects and directs woodchips to appropriate area
- Implements procedures for the distribution of woodchips
- Implements isolation procedures
- Operates high risk (and non-high risk) load shifting equipment as required
- Operates plant and equipment
- Uses measuring equipment as required
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to distributing woodchips including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Equipment fault identification and corrective action
- Working knowledge of woodchip distribution area layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Woodchip pile segregation purpose and techniques
- Machine and plant maintenance requirements and procedures
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters

REQUIRED SKILLS AND KNOWLEDGE

- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control woodchip distribution processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in distributing woodchips

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in distributing woodchips

Access to the full range of equipment involved in distributing woodchips in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job

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- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised wording**, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators

RANGE STATEMENT

- line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Materials and supplies may include:
- woodchips
- Equipment may include:
- chip spreaders and slingers,
 - silos
 - hopper and storage systems
 - trailer or tipper
 - articulated loader
 - tracked dozer and front end loader
 - video monitoring
 - electronic weighing and measuring equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to woodchip distribution
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - break down tools and equipment
 - electronic communication equipment
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk and (non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems

RANGE STATEMENT

- enterprise policy, procedures and guidelines
 - weighbridge dockets
 - work orders
 - tally sheets
 - truck delivery dockets
 - invoices
 - non-conformance reports
 - log sheets (production/equipment)
 - equipment performance data
 - tonnage, input and conversion
 - Material Safety Data Sheets (MSDS)
 - pile survey documents
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - work area personnel
 - maintenance services
 - team members
 - production/service co-ordinator
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement

RANGE STATEMENT

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPRES260A Receive materials

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to receive materials in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who receive materials in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- check, weigh and record load data, and
- direct trucks for unloading

to meet safety, quality and productivity requirements

It does not include unloading materials, preparing and operating the woodchip production system, distributing woodchips or troubleshooting and rectifying primary resource operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Check, weigh and record load data	<ol style="list-style-type: none">1.1. Materials are checked, weighed and load data is recorded within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements1.2. Trucks delivering loads are identified and accepted as per site receiving procedures1.3. Load data and weights are recorded1.4. Non-conforming loads are handled1.5. Confirmation of delivery record is obtained from truck driver where required
2. Direct trucks for unloading	<ol style="list-style-type: none">2.1. Trucks are directed for unloading within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements2.2. Workforce is notified of deliveries requiring unloading2.3. Truck traffic in the area is monitored and controlled

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in receiving materials
- Reads and interprets required documentation, procedures and reports
- Communicates effectively with truck driver and personnel
- Collects, interprets and enters data and uses recording systems
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Controls traffic within specified work area
- Directs trucks to appropriate locations for unloading
- Monitors and controls process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Operates materials handling equipment and procedures

REQUIRED SKILLS AND KNOWLEDGE

- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to receiving materials including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of materials receiving processes, area layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Load types, specifications and characteristics
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control materials receiving processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in receiving materials

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in receiving materials

Access to the full range of equipment involved in receiving materials in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in

EVIDENCE GUIDE

a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate
- fully automatic electronic systems

Site receiving procedures may

RANGE STATEMENT

include:

- semi-automated electronic systems
- electronic systems
- manual weighing systems

Materials and supplies may include:

- hardwood or softwood logs
- lapped pulp
- baled pulp
- waste paper
- woodchips
- supplies
- parts

Equipment may include:

- weighbridge
- tape measure
- video monitoring
- electronic weighing and measuring equipment
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instrumentation
- fully automated, semi-automated, manually operated plant and equipment appropriate to receiving materials

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- enterprise policy, procedures and guidelines
- emails
- shift reports
- maintenance information

RANGE STATEMENT

- weighbridge dockets
 - work orders
 - tally sheets
 - truck delivery dockets
 - invoices
 - non-conformance reports
 - test results and reports
 - log sheets (production/equipment)
 - equipment performance data
 - tonnage, input and conversion
 - Material Safety Data Sheets (MSDS)
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service co-ordinator
 - maintenance service
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel

RANGE STATEMENT

Forms of communication may include:

- touch
- smell
- vibration
- temperature
- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPRES270A Unload materials

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to unload materials in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who unload materials in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- conduct unloading processes
- sort and store materials, and
- record or tally unloading operations data

to meet safety, quality and productivity requirements

It does not include receiving materials, preparing and operating the woodchip production system, distributing woodchips or troubleshooting and rectifying primary resource operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Conduct unloading processes	1.1. Unloading processes are conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements. 1.2. Load shifting equipment is checked, set up and prepared for operation 1.3. Load is inspected for movements and safest unloading sequence is determined 1.4. Materials are lifted and unloaded maintaining load and equipment stability 1.5. Damage to raw materials, equipment, or vehicle is reported according to company procedures 1.6. Load or vehicle lifting equipment performance is monitored for unsatisfactory or hazardous operation
2. Sort and store materials	2.1. Materials are sorted and stored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Materials are identified and assessed for immediate use or storage 2.3. Materials are moved to appropriate storage locations consistent with type, quality and stock rotation requirements 2.4. Stacks are constructed to provide stability and minimise problems 2.5. Provision for decks, storage bays and access for lifting equipment is made when storing
3. Record or tally unloading operations data	3.1. Unloading operations data is recorded or tallied within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Materials are confirmed and recorded 3.3. Storage areas are marked as required 3.4. Tally sheets and/or reject stock documentation are maintained as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in unloading materials
- Reads and interprets required documentation, procedures and reports
- Collects, interprets and enters data and uses recording systems
- Maintains machinery documentation
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Monitors and controls process control points
- Maintains situational awareness in the work area
- Uses enterprise work practices
- Selects appropriate actions for handling non-conformance loads
- Minimises handling to meet loading, processing, and stock rotation requirements
- Moves and stacks materials
- Delivers materials as required to meet production requirements
- Uses identification, classification and tagging systems
- Uses measuring equipment as required
- Applies manual handling techniques
- Operates high risk (and non-high risk) load shifting equipment as required
- Operates materials handling equipment
- Analyses and uses sensory information to alter work sequence to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to unloading materials, including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Dangerous goods handling and storing requirements
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of materials unloading processes, area layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Load types, specifications and characteristics
- Unloading, sorting and storage requirements, procedures and implications
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters

REQUIRED SKILLS AND KNOWLEDGE

- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control material unloading processes, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in unloading materials

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in unloading materials

Access to the full range of equipment involved in unloading materials in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about

EVIDENCE GUIDE

specific skills and knowledge

- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators

RANGE STATEMENT

- line speed
 - handovers
 - quality checks
 - meeting output targets i.e. net tonnes per employee per annum
 - machine/process time availability i.e. time the machine or process is making product
 - machine/process production rate
- Materials and supplies may include:
- hardwood or softwood logs
 - lapped pulp
 - baled pulp
 - waste paper
 - woodchips
 - finished supplies
 - parts
 - complete orders
- Equipment may include:
- fork lift
 - crane
 - front end loader
 - mobile crane
 - dozer
 - fork lift attachments
 - crane hooks
 - chains
 - slings and straps
 - grabs
 - winches
 - computer system
 - video monitoring
 - electronic weighing and measuring equipment
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to unloading materials
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing
- OHS and environmental requirements (local, state and commonwealth)

RANGE STATEMENT

and certification requirements may include:

- activity or task specific high risk and (non-high risk) load shifting licensing requirements
- dangerous goods storage and handling

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- enterprise policy, procedures and guidelines
- weighbridge dockets
- work orders
- tally sheets
- truck delivery dockets
- invoices
- non-conformance reports
- test results and reports
- log sheets (production/equipment)
- equipment performance data
- tonnage, input and conversion
- Material Safety Data Sheets (MSDS)
- pile survey documents

Maintenance may include:

- operator level maintenance as per site agreement
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- work area personnel
- maintenance services

RANGE STATEMENT

- team members
 - production/service co-ordinator
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPRES340A Troubleshoot and rectify primary resource operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify primary resource operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify primary resource operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and diagnose causes of process variation, plant or equipment faults
- rectify process variation, plant or equipment faults
- identify and rectify product quality faults, and
- record and report troubleshooting activities

to meet safety, quality and productivity requirements

It does not include receiving or unloading materials, preparing and operating the woodchip production system or distributing woodchips

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and diagnose causes of process variation, plant or equipment faults	1.1. Causes of process variation, plant or equipment faults are identified and diagnosed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Visual assessments and machine alarms are interpreted to determine fault type and location 1.3. Routine physical inspections of plant and process are made to identify faults 1.4. Causes and sources of process variation, plant or equipment faults are identified and located using appropriate techniques 1.5. Relevant historical data is accessed and analysed to confirm diagnosis
2. Rectify process variation, plant or equipment faults	2.1. Process variation and plant or equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Emergency stop or shutdown, isolation and lockout procedures are initiated prior to fault rectification 2.3. Faulty equipment or instrumentation is isolated and repaired or replaced 2.4. Corrective operational adjustments and operator level maintenance requirements are implemented 2.5. Restoration to normal operation is achieved and communicated to relevant personnel
3. Identify and rectify product quality faults	3.1. Product quality faults are identified and rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product faults or variations are identified by observation, systematic sampling and testing 3.3. Out-of-specification production is managed 3.4. Samples for a range of tests are undertaken 3.5. Required tests are conducted 3.6. Test results are interpreted and operations are adjusted to correct variations
4. Record and report troubleshooting	4.1. Troubleshooting activities are recorded and reported within OHS regulations, environmental and safe

ELEMENT	PERFORMANCE CRITERIA
activities	working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from specifications and machine operating faults are documented 4.3. Assessment and evaluation of causes of deviations and corrective actions undertaken are documented 4.4. Relevant information is communicated to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying primary resource operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Sets up and operates test equipment
- Performs tests and interprets and records results if required
- Uses measuring equipment as required
- Uses routine checking procedures during plant and systems operation
- Conducts routine checks during plant and systems operation

REQUIRED SKILLS AND KNOWLEDGE

- Operates high risk (and non-high risk) load shifting equipment, as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to primary resource operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of primary resource operations, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to primary resource handling plant and processes
 - relationships between primary resource handling system, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Types, causes and effects of plant shutdowns
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control primary resource operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying primary resource operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in primary resource operations

Access to the full range of equipment involved in integrated continuous manufacturing of primary resource operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Materials and supplies may include:

- hardwood or softwood logs
- lapped pulp
- waste paper
- woodchips
- supplies
- parts

Equipment may include:

- chipper
- hogger
- conveyor feed systems
- chipscreens
- hydraulic cutting equipment
- blades
- chainsaws
- magnetic detectors
- silos
- hopper and storage systems

RANGE STATEMENT

- docking saw
 - bark transferring systems and debarking machinery
 - chip spreaders and slingers
 - trailer or tipper
 - articulated loader
 - tracked dozer and front end loader
 - forklift
 - side loader
 - mobile crane
 - rigid loader
 - log loader
 - straddle truck
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to primary resource operations
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - break down tools and equipment
 - electronic communication equipment
- Testing equipment may include
- drying ovens
 - sizing screens
 - computer processing equipment
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Attachments may include:
- fork lift attachments
 - crane hooks
 - chains
 - slings and straps
 - grabs
 - winches
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policy, procedures and guidelines
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- weighbridge dockets
- work orders
- tally sheets
- truck delivery dockets
- invoices
- non-conformance reports
- test results and reports
- log sheets (production and equipment)
- equipment performance data
- tonnage, input and conversion
- sampling and test reports
- Material Safety Data Sheets (MSDS)
- pile survey documents
- process and instrument diagrams

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- work area personnel
- internal/external customers and suppliers
- team members

RANGE STATEMENT

- production/service coordinators
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPSPR210A Monitor and control stock preparation systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control stock preparation systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control stock preparation systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control process and systems
- control quality of stock, chemicals and water
- conduct product grade change, and
- record process and system information

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying stock preparation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and control process and systems	1.1. Process and systems are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan day's activities as required 1.3. Operational status is confirmed by inspection, observations and other information 1.4. Process supplies are maintained and controlled to meet production requirements 1.5. Systems are monitored to ensure stock preparation systems are within parameters 1.6. Process and system variations from operating parameters are identified, rectified and/or reported 1.7. Operator level preventative maintenance is undertaken as required 1.8. Changes to machine operations are communicated to relevant personnel 1.9. Stock systems are monitored and adjusted during stock-off situations as required
2. Control quality of stock, chemicals and water	2.1. Quality of stock, chemicals and water is controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Quality of stock, chemical and water is monitored and controlled within parameters 2.3. Test samples are taken and test results are interpreted and recorded as required 2.4. Adjustments are made to ensure quality requirements are met 2.5. Routine observations and assessments are conducted on product and system operations 2.6. Changes to product requirements are communicated to relevant personnel
3. Conduct product grade change	3.1. Product grade changes are conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product grade change is completed within OHS, SOP, environmental and safe working requirements

ELEMENT	PERFORMANCE CRITERIA
	<p>and practices</p> <p>3.3. Grade change requirements are determined and planned</p> <p>3.4. Run out of stock, chemicals and water systems are coordinated and completed as required</p> <p>3.5. Flushing, draining and cleaning of stock, chemicals and water systems are completed as required</p> <p>3.6. Process set ups/adjustments are implemented to meet new grade requirements</p> <p>3.7. Raw materials and supplies required for new grade requirements are staged ready for use</p> <p>3.8. Stock, chemicals and water systems startups are coordinated and implemented for new grade requirements as required</p> <p>3.9. Grade change is coordinated and implemented on the run as required</p>
4. Record process and system information	<p>4.1. Recording process and system information is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2. Systems and production information is recorded</p> <p>4.3. Problems or variations in performance are recorded and communicated</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling stock preparation systems
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Interprets and plans grade change requirements
- Co-ordinates and conducts grade changes

REQUIRED SKILLS AND KNOWLEDGE

- Takes samples, conducts tests, interprets and records results as required
- Uses measuring equipment as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to stock preparation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Stock preparation in-process tests and procedures
- Working knowledge of stock preparation plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Grade requirements
- Quality requirements
- Materials and supplies and how they influence paper properties
- Grade change processes and coordination
- Timing for materials and supplies run out
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control stock preparation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment

EVIDENCE GUIDE

Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the monitoring and controlling of stock preparation systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in stock preparation systems

Access to the full range of equipment involved in integrated continuous manufacturing of stock preparation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be

EVIDENCE GUIDE

understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Systems and functions involved in stock preparation may include:

- refining systems
- blending system

RANGE STATEMENT

- proportioning system
 - broke system
 - stock chests
 - water chests
 - cleaning system
 - water recovery system
 - chemical and additive plants
 - bale handler
 - broke baler
 - wire coiler
- Materials and supplies may include:
- water
 - stock
 - compressed air
 - chemicals
 - additives
 - steam
 - baled pulp
- Equipment may include:
- refiners
 - pumps
 - valves
 - chests
 - agitators
 - pulpers
 - screens
 - cleaners
 - showers
 - disc deckers
 - consistency controllers
 - screw press
 - water recovery equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to stock preparation systems
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks involved in
- steam and/or gas leaks

RANGE STATEMENT

stock preparation may include:

- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- as applicable, activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

Maintenance may include:

- operator level maintenance as per site agreements

RANGE STATEMENT

- operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interactions with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities

RANGE STATEMENT

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPSPR320A Prepare and start up stock preparation system for production

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up stock preparation system for production in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up stock preparation systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup, and
- start up stock preparation operations

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying stock preparation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	1.1. Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Planned production requirements are confirmed and communicated to relevant personnel 1.3. Availability of machine supplies are confirmed
2. Inspect and prepare systems for startup	2.1. Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Isolations are removed as required 2.3. Operational settings are made and confirmed 2.4. Pre-startup checks are completed 2.5. Monitoring devices and systems are checked and confirmed operational 2.6. Faults are identified and rectified, as required 2.7. Raw material supply requirements are staged ready for use as required 2.8. Operational readiness is confirmed and communicated to relevant personnel
3. Start up stock preparation operations	3.1. Stock preparation operations are started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Stock, chemical and water systems startups are coordinated and implemented as required 3.3. System functions are confirmed by monitoring plant, equipment and control systems/display monitors 3.4. Test samples taken and test results interpreted and recorded as required 3.5. Process operation is communicated to relevant personnel 3.6. Production start up details are documented as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up stock preparation systems
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results
- Identifies and monitors process control points
- Plans and organises startup
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to stock preparation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Working knowledge of stock preparation plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control stock preparation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the preparation and startup of stock preparation systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in stock preparation systems

Access to the full range of equipment involved in integrated continuous manufacturing of stock preparation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Systems and functions involved in stock preparation may include:
- machine/process production rate
 - refining systems
 - blending system
 - proportioning system
 - broke system
 - stock chests
 - water chests
 - cleaning system
 - water recovery system
 - chemical and additive plants
 - bale handler
 - broke baler
 - wire coiler
- Materials and supplies may include:
- water
 - stock
 - compressed air
 - chemicals
 - additives
 - steam
 - baled pulp
- Equipment may include:
- refiners
 - pumps
 - valves
 - chests
 - agitators
 - pulpers
 - screens
 - cleaners
 - showers
 - disc deckers
 - consistency controllers
 - screw press
 - water recovery equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to stock preparation systems
- Electronic control systems may
- Digital Control System (DCS)

RANGE STATEMENT

include:

- touch screens
- robotics

Hazards and risks involved in stock preparation may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk and (non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

RANGE STATEMENT

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

RANGE STATEMENT

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPSPR330A Co-ordinate and implement stock preparation system shutdown

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and implement stock preparation system shutdown in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and implement stock preparation system shutdown in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess causes and effects of shutdown
- implement shutdown procedures, and
- record and report shutdown information

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or troubleshooting and rectifying with stock preparation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess causes and effects of shutdown	1.1. Causes and effects of shutdown are assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Unplanned shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Planned shutdown is implemented 2.3. Unplanned shutdown is responded to and rectified 2.4. Isolation requirements are implemented as required 2.5. Shutdown information is communicated to relevant personnel as required
3. Record and report shutdown information	3.1. Shutdown information, including corrective action is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

REQUIRED SKILLS AND KNOWLEDGE

- Uses required forms of communication in co-ordinating and implementing stock preparation system shutdowns
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to stock preparation operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of stock preparation plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Types, causes and effects of dry end shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the stock preparation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the co-ordination and implementation of stock preparation system shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in stock preparation systems

Access to the full range of equipment involved in integrated continuous manufacturing of stock preparation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- machine/process production rate

Systems and functions involved in stock preparation may include:

- refining systems
- blending system
- proportioning system
- broke system
- stock chests
- water chests
- cleaning system
- water recovery system
- chemical and additive plants
- bale handler
- broke baler
- wire coiler

Materials and supplies may include:

- water
- stock
- compressed air
- chemicals
- additives
- steam
- baled pulp

Equipment may include:

- refiners
- pumps
- valves
- chests
- agitators
- pulpers
- screens
- cleaners
- showers
- disc deckers
- consistency controllers
- screw press
- water recovery equipment
- computer systems
- electronic screens and alarms
- process control systems

RANGE STATEMENT

- fully automated, semi-automated, manually operated plant and equipment appropriate to stock preparation systems
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks involved in stock preparation may include:
- steam and/or gas leaks
 - fires
 - nip points
 - compressed air
 - hot surfaces
 - electrical
 - entanglement
 - slip hazards/falls
 - energy
 - pressures
 - chemicals
 - fumes
 - confined spaces
 - dust
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams
- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Maintenance may include:

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers

RANGE STATEMENT

- maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstructions
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPSPR440A Troubleshoot and rectify stock preparation systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify stock preparation systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify stock preparation systems in the pulp and paper industry

This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse causes of systems and quality faults
- rectify systems, equipment and product quality faults, and
- record and report process performance and product quality data

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or shutting down stock preparation systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of systems and quality faults	1.1. Causes of systems and quality faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Alarm systems and observations are interpreted to determine fault type and location 1.3. Routine inspections of plant and processes are made to identify faults 1.4. Sampling and testing results are interpreted to identify variations from operating parameters 1.5. Cause and source of problem is identified and located 1.6. Relevant sources of information are accessed and interpreted to assist analysis 1.7. Information is communicated to relevant personnel
2. Rectify systems and equipment faults	2.1. Systems and equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is shut down and isolated prior to fault rectification if required 2.3. Faulty equipment is by-passed where the process allows 2.4. Faulty equipment is repaired or replaced as required 2.5. Corrective adjustments are made to equipment 2.6. Operator level maintenance is undertaken as required 2.7. Restoration to normal operation is verified and communicated to relevant personnel
3. Rectify product quality faults	3.1. Product quality faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product quality faults or variations are identified by observation inspection and testing 3.3. Samples for a range of tests are taken 3.4. Test results are interpreted and processes are adjusted to correct variations from specification
4. Record and report process performance	4.1. Process performance and product quality data is recorded and reported within OHS regulations,

ELEMENT	PERFORMANCE CRITERIA
and product quality data	environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from specifications are documented 4.3. Performance variations are documented 4.4. Corrective actions are recorded 4.5. Out-of-specification product is dealt with 4.6. Information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying stock preparation systems
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Assists others to identify and resolve operational problems in the workplace
- Identifies causes and effects of faults and corrective action on associated processes
- Takes samples, conducts tests, interprets and records results
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Uses measuring equipment as required
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity

REQUIRED SKILLS AND KNOWLEDGE

- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to stock preparation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Use and handling requirements of chemicals used; their purpose, effects, MSDS and SOP
- Relevant forms of communication
- Detailed knowledge of stock preparation plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to stock preparation plant and processes
 - relationships between stock preparation plant, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Mill maintenance system as it applies to stock preparation plant and processes
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control stock preparation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying of stock preparation systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in stock preparation systems

Access to the full range of equipment involved in integrated continuous manufacturing of stock preparation systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Systems and functions involved in stock preparation may include:
- machine/process production rate
 - refining systems
 - blending system
 - proportioning system
 - broke system
 - stock chests
 - water chests
 - cleaning system
 - water recovery system
 - chemical and additive plants
 - bale handler
 - broke baler
 - wire coiler
- Materials and supplies may include:
- water
 - stock
 - compressed air
 - chemicals
 - additives
 - steam
 - baled pulp
- Equipment may include:
- refiners
 - pumps
 - valves
 - chests
 - agitators
 - pulpers
 - screens
 - cleaners
 - showers
 - disc deckers
 - consistency controllers
 - screw press
 - water recovery equipment
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to stock preparation systems

RANGE STATEMENT

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Hazards and risks involved in stock preparation may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets

RANGE STATEMENT

- Maintenance may include:
- operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
 - operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities

RANGE STATEMENT

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPSTM210A Monitor and control boiler operation

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control boiler operation in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control boiler operation in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- confirm operational status
- monitor and control boiler and ancillary plant operation
- handover boiler operations, and
- record and document boiler and plant performance

to meet safety, quality and productivity requirements

It does not include starting up and shutting down of steam boiler operations or troubleshooting and rectifying boiler plant systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Confirm operational status	1.1. Operational status is confirmed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan the daily activities as required 1.3. Continuing process supplies are maintained 1.4. Combustion processes are confirmed to be within operational specifications 1.5. Boiler performance is recorded in the operational log 1.6. Operational status is communicated to relevant personnel
2. Monitor and control boiler and ancillary plant operation	2.1. Boiler and ancillary plant operation is monitored and controlled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Operational status is confirmed by inspection, observations and other information 2.3. Water quality tests are conducted and chemical addition adjusted as required 2.4. Steam pressures are monitored and maintained as required 2.5. Fuel efficiency calculations and recordings are made 2.6. Boiler control adjustments are made to maintain operation within specification 2.7. Pre-treatment systems for water to be monitored, tested and maintained are made up 2.8. Steam distribution systems are monitored and maintained to client requirements 2.9. Operator level maintenance is carried out as required
3. Handover boiler operations	3.1. Handover of boiler operations is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements

ELEMENT	PERFORMANCE CRITERIA
	3.2. Workplace records are maintained in accordance with statutory requirements and workplace procedures
	3.3. Handover is carried out according to workplace procedure
	3.4. Boiler operators are aware of boiler status and related equipment at completion of handover
4. Record and document boiler and plant performance	4.1. Boiler and plant performance is recorded and documented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	4.2. Operating log is maintained
	4.3. Maintenance requirements are identified and documented as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling boiler operation
- Reads and interprets required documentation, procedures and reports within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Interprets specifications and customer orders
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Perform tests and interprets and record results as required
- Uses measuring equipment as required
- Conducts pre-operational checks
- Inspects and maintains boiler and ancillary equipment and services to operating standards
- Operates high risk equipment as required

REQUIRED SKILLS AND KNOWLEDGE

- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to monitoring and controlling boiler operation systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of steam generation plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Sampling and testing process for plant and system operations, and process steam supply monitoring - purpose, standards and procedures as per site agreements
- Boiler water treatment system and reasons for treatment
- Operation of plant and systems
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control boiler operation, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling boiler operation

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in steam generation operations

Access to the full range of equipment involved in integrated continuous manufacturing of steam generation operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Boiler types may include:
- machine/process production rate
 - fire tube
 - water tube
- and may be operated in conjunction with other steam driven plant and operations including:
- paper making machines
 - turbines
 - digesters
 - evaporators
 - heating plant
- Pre-operational checks may include:
- low water level alarm
 - high water level alarm
 - low water level alarm lockout
 - hydrostatic test
 - burner management system
 - safety valve test
- Materials and supplies may include:
- chemicals
 - coal
 - oil
 - gas
 - additives
 - air
 - water
 - wood waste
 - steam
 - recovery process products
 - power
- Equipment may include:
- boiler and auxiliary plant
 - boiler heating systems
 - steam distribution system
 - fuel and fuel delivery system plant
 - dust removal and combustion waste
 - fuel management system
 - extraction systems
 - water distribution systems
 - compressed air systems
 - steam temperature control plant
 - chemical dosing system
 - water treatment system

RANGE STATEMENT

- flame detection equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to steam generation operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - as applicable, activity or task specific high risk licensing requirements
 - appropriate boiler/pressure vessel operator certification
 - confined space standards and regulations
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - enterprise policies and procedures
 - job sheets
 - manufacturer's specifications
 - maintenance documentation
 - statutory requirements
 - Materials Safety Data Sheets (MSDS)
 - operator's log
 - process and instrument diagrams
- Maintenance may include:
- operator level as per site agreements
 - operator schedules
 - systems
 - suppliers
 - proactive strategies e.g. Total Productive

RANGE STATEMENT

	Maintenance (TPM), Reliability Centred Maintenance (RCM)
Actions may include:	<ul style="list-style-type: none">• process adjustments• reporting to authorised person• rectifying problem within level of responsibility
Communications may include	interaction with: <ul style="list-style-type: none">• internal/external customers and suppliers• team members• production/service coordinators• maintenance services• operational management• statutory authorities
Situational awareness may include	awareness of: <ul style="list-style-type: none">• traffic• pedestrians• location of equipment• product• hazards• obstruction• unexpected movement
Forms of communication may include:	<ul style="list-style-type: none">• written e.g. log books, emails, incident and other reports, run sheets, data entry•• reading and interpreting documentation e.g. SOP, manuals, checklists, drawings• verbal e.g. radio skills, telephone, face to face, handover• non-verbal e.g. hand signals, alarms, observations• signage e.g. safety, access
Sensory information may include:	<ul style="list-style-type: none">• visual• sound• feel• touch• smell• vibration• temperature

Unit Sector(s)

Not Applicable

FPPSTM320A Manage steam boiler startup

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to manage steam boiler startup in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who manage steam boiler startup in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- conduct pre-operational safety checks and
- conduct startup procedures

to meet safety, quality and productivity requirements

It does not include monitoring and controlling boiler operation, shutting down and banking steam boiler or troubleshooting and rectifying boiler plant systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Conduct pre-operational safety checks	1.1. Pre-operational safety checks are conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Plant status is confirmed by inspection, observations and other information 1.3. Potential work area hazards are identified, reported and prevention or control measures implemented 1.4. Work and output requirements are established 1.5. Pre-operational and safety checks are conducted 1.6. Isolations are removed 1.7. Availability of process supplies are confirmed
2. Conduct startup procedures	2.1. Startup procedures are conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-light conditions are established 2.3. Boiler condition during startup is monitored to detect abnormal conditions 2.4. Boiler is started and brought on-line 2.5. System and plant is observed for correct operational response 2.6. Deviations from required operating conditions are detected and corrective action undertaken to rectify 2.7. Responses to corrective actions are documented as required 2.8. Startup information is recorded and reported as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in managing a steam boiler startup
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Prepares written information and enters data to support groups and teams
- Interprets specifications and customer orders
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Implements isolation and access procedures
- Maintains a clean and hazard free work area
- Sets up and starts boiler within an appropriate time
- Uses measuring equipment as required
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to steam generation operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of steam generation plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Boiler water treatment system and reasons for treatment
- Pre-operational checks and requirements
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control steam generation systems, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in managing a steam boiler startup

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in steam generation operations

Access to the full range of equipment involved in integrated continuous manufacturing of steam generation operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Boiler types may include:
- machine/process production rate
 - fire tube
 - water tube
- and may be operated in conjunction with other steam driven plant and operations including:
- paper making machines
 - turbines
 - digesters
 - evaporators
 - heating plant
- Pre-operational checks may include:
- low water level alarm
 - high water level alarm
 - low water level alarm lockout
 - hydrostatic test
 - burner management system
 - safety valve test
- Materials and supplies may include:
- chemicals
 - coal
 - oil
 - gas
 - additives
 - air
 - water
 - wood waste
 - steam
 - recovery process products
 - power
- Equipment may include:
- boiler and auxiliary plant
 - boiler heating systems
 - steam distribution system
 - fuel and fuel delivery system plant
 - dust removal and combustion waste
 - fuel management system
 - extraction systems
 - water distribution systems
 - compressed air systems
 - steam temperature control plant
 - chemical dosing system
 - water treatment system

RANGE STATEMENT

- flame detection equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to steam generation operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - appropriate boiler/pressure vessel operator certification
 - confined space standards and regulations
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - enterprise policies and procedures
 - job sheets
 - manufacturer's specifications
 - maintenance documentation
 - statutory requirements
 - Materials Safety Data Sheets (MSDS)
 - operator's log
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers

RANGE STATEMENT

- Actions may include:
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - production/service coordinators
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPSTM330A Shut down and bank steam boiler

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to shut down and bank steam boiler/s in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who shut down and bank steam boiler/s in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- prepare boiler for shutdown
- conduct boiler inspection and maintenance
- store boiler in shutdown mode
- respond to unplanned or emergency shutdowns, and
- record and report shutdown data

to meet safety, quality and productivity requirements

It does not include managing steam boiler startup, monitoring and controlling boiler operation or troubleshooting and rectifying boiler plant systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare boiler for shutdown	1.1. Boiler is prepared for shutdown within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Maintenance requirements are identified and reported 1.3. Appropriate isolations are initiated 1.4. Faulty plant is isolated/contained where possible to allow continued production as required 1.5. Boiler and ancillary plant are shut down
2. Conduct boiler inspection and maintenance	2.1. Boiler inspection and maintenance is conducted within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Boiler is prepared for inspection 2.3. Condition of boiler is established to ensure safe removal of equipment 2.4. Inspections and maintenance is carried out 2.5. Internal and external cleaning of boiler and fittings are undertaken as required
3. Store boiler in shutdown mode	3.1. Boiler is stored in shutdown mode within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Storage time and condition of storage are established 3.3. Boiler is stored in a safe condition for access in accordance with manufacturer's specifications 3.4. Stored boiler water and chemicals are analysed and handled when boiler is stored for extended periods
4. Respond to unplanned or emergency shutdowns	4.1. Unplanned or emergency shutdowns are responded to within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Shutdown requirement is responded to immediately

ELEMENT	PERFORMANCE CRITERIA
	4.3. Emergency conditions are complied with in accordance with legislative and enterprise procedures, where applicable
	4.4. Cause of shutdown is identified and located where possible
	4.5. Immediate safety of personnel and plant is ensured
	4.6. Continuing plant operation is monitored and maintained in safe working conditions and customers are notified
	4.7. Relevant personnel are notified to rectify and make plant ready for restart
5. Record and report shutdown data	5.1. Shutdown data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements
	5.2. Shutdown information is recorded, including corrective action as required
	5.3. Shutdown information is reported to relevant personnel as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in shutting down and banking steam boiler/s
- Reads and interprets required documentation, procedures and reports within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Interprets specifications and customer orders
- Prepares written information and enters data to support groups and teams
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Implements boiler bank, standby or store procedures

REQUIRED SKILLS AND KNOWLEDGE

- Sets up boiler and/or re-starts within appropriate time
- Conducts pre-operational checks
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to steam generation operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of steam generation plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Types, causes and effects of steam boiler shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Boiler water treatment system and reasons for treatment
- Operation of plant and systems
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control boiler plant operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the shutting down and banking of steam boilers

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in steam generation operations

Access to the full range of equipment involved in integrated continuous manufacturing of steam generation operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Boiler types may include:
- machine/process production rate
 - fire tube
 - water tube
- and may be operated in conjunction with other steam driven plant and operations including:
- paper making machines
 - turbines
 - digesters
 - evaporators
 - heating plant
- Pre-operational checks may include:
- low water level alarm
 - high water level alarm
 - low water level alarm lockout
 - hydrostatic test
 - burner management system
 - safety valve test
- Materials and supplies may include:
- chemicals
 - coal
 - oil
 - gas
 - additives
 - air
 - water
 - wood waste
 - steam
 - recovery process products
 - power
- Equipment may include:
- boiler and auxiliary plant
 - boiler heating systems
 - steam distribution system
 - fuel and fuel delivery system plant
 - dust removal and combustion waste
 - fuel management system
 - extraction systems
 - water distribution systems
 - compressed air systems
 - steam temperature control plant
 - chemical dosing system
 - water treatment system

RANGE STATEMENT

- flame detection equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to steam generation operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - appropriate boiler/pressure vessel operator certification
 - confined space standards and regulations
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - enterprise policies and procedures
 - job sheets
 - manufacturer's specifications
 - maintenance documentation
 - statutory requirements
 - Materials Safety Data Sheets (MSDS)
 - operator's log
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers

RANGE STATEMENT

- Actions may include:

 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
 - process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:

 - internal/external customers and suppliers
 - team members
 - production/service coordinators
 - maintenance services
 - operational management
 - statutory authorities
- Situational awareness may include awareness of:

 - traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communication may include:

 - written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:

 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPSTM440A Troubleshoot and rectify boiler plant systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to troubleshoot and rectify boiler plant systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to persons who troubleshoot and rectify boiler plant systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and diagnose causes of faults
- rectify faults, and
- record and report operational data

to meet safety, quality and productivity requirements

It does not include managing steam boiler startup, monitoring and controlling boiler operations or shutting down and banking steam boiler/s

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and diagnose causes of faults	<ul style="list-style-type: none">1.1. Causes of faults are identified and diagnosed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements1.2. Abnormal plant conditions and system alarms are interpreted to determine fault type and location1.3. Physical inspections of plant and processes are made to identify faults1.4. Cause and source of fault is identified and located1.5. Faulty plant is isolated, if possible, and confirmed with production and maintenance1.6. Diagnosis is confirmed by access and reference to relevant historical data1.7. Diagnoses are communicated to relevant personnel
2. Rectify faults	<ul style="list-style-type: none">2.1. Faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements2.2. Shutdown and isolation procedures are implemented as required2.3. Faulty equipment is repaired or replaced2.4. Adjustments to process and systems are made to restore normal operations2.5. Normal operation is communicated to relevant personnel
3. Record and report operational data	<ul style="list-style-type: none">3.1. Operational data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements3.2. Variations from standard specification and boiler operation faults are documented3.3. Troubleshooting process and corrective actions are recorded3.4. Relevant information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying boiler plant systems
- Reads and interprets required documentation, procedures and reports within level of responsibility
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Identifies and responds to causes of shutdowns
- Determines quality faults, effects and causes
- Selects and uses appropriate troubleshooting methods
- Uses troubleshooting guides and processes
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Perform tests and interpret and record results as required
- Confirms and maintains required production throughput after restart
- Initiates isolations in accordance with SOP
- Conducts routine checking procedures during plant and systems operation
- Maintains plant operation within specification
- Uses measuring equipment as required
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- Procedures, regulations and legislative requirements relevant to steam generation operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of steam generation system, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to steam generation plant and processes
 - relationships between steam generation system, processes and associated services
- An appropriate range of troubleshooting methods
- Types, causes and effects of plant shutdowns
- Impact and effect of inappropriate responses to shutdown
- Plant startup and shutdown procedures
- Plant operation and control mechanisms
- Boiler water treatment system and reasons for treatment
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control boiler plant operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace

EVIDENCE GUIDE

- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying boiler plant systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in steam generation operations

Access to the full range of equipment involved in integrated continuous manufacturing of steam generation operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

Boiler types may include:

- fire tube
- water tube

and may be operated in conjunction with other steam driven plant and operations including:

- paper making machines
- turbines
- digesters
- evaporators
- heating plant

Pre-operational checks may include:

- low water level alarm
- high water level alarm
- low water level alarm lockout

RANGE STATEMENT

- Materials and supplies may include:
- hydrostatic test
 - burner management system
 - safety valve test
 - chemicals
 - coal
 - oil
 - gas
 - additives
 - air
 - water
 - wood waste
 - steam
 - recovery process products
 - power
- Equipment may include:
- boiler and auxiliary plant
 - boiler heating systems
 - steam distribution system
 - fuel and fuel delivery system plant
 - dust removal and combustion waste
 - fuel management system
 - extraction systems
 - water distribution systems
 - compressed air systems
 - steam temperature control plant
 - chemical dosing system
 - water treatment system
 - flame detection equipment
 - hand and power tools
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to steam generation operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements
- OHS and environmental requirements (local, state and commonwealth)

RANGE STATEMENT

may include:

- activity or task specific high risk licensing requirements
- appropriate boiler/pressure vessel operator certification
- confined space standards and regulations

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- enterprise policies and procedures
- job sheets
- manufacturer's specifications
- maintenance documentation
- statutory requirements
- Materials Safety Data Sheets (MSDS)
- operator's log
- process and instrument diagrams

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- production/service coordinators
- maintenance services
- operational management
- statutory authorities

RANGE STATEMENT

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communication may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPSUS210A Apply sustainable work practices/policies

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit specifies the outcomes required to apply sustainable work practices/policies to reduce negative environmental impacts of work practices in the pulp and paper industry without compromising OHS or legal requirements, and with due regard for other productivity and quality related operational requirements

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Application of the Unit

Application of the unit

This unit addresses the knowledge, processes and techniques necessary to participate in sustainable work practices in the pulp and paper industry. It would normally apply to a team member

This unit generally applies to those who work in the pulp and paper manufacturing industry, to enable them to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|---|---|
| 1. Identify current resource use | 1.1. Workplace environmental and resource efficiency issues are identified and clarified with appropriate personnel
1.2. Resources used in own work role are identified
1.3. Current usage of resources is measured and documented using appropriate techniques |
| 2. Comply with relevant regulations | 2.1. Identified legislative and workplace requirements are applied
2.2. Breaches or potential breaches of identified legislative and workplace requirements are reported to appropriate personnel according to workplace procedures |
| 3. Seek opportunities to improve efficiency | 3.1. Workplace plans to improve environmental practices and resource efficiency are followed
3.2. Suggestions are made for improvements to workplace practices in own work area |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in applying sustainable work policies
- Reads and interprets required documentation, procedures and reports
- Identifies and actions problems within level of responsibility
- Maintains situational awareness in the work area
- Recognises procedures, follows instructions and responds to change
- Communicates with questions to clarify work requirements

Required knowledge

- Procedures, regulations and legislative requirements including OHS, environmental including relevant sustainability requirements/practices, Standard Operating Procedures (SOP), isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Basic understanding of sustainability
- Environmental and resource hazards/risks and inefficiencies associated within own work area
- Relevant environmental and resource efficiency systems and procedures for own work area
- Laws and regulations relevant to the work context
- Reporting procedures
- Upstream/downstream impacts of the application of sustainable work practices

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced pulp mill operations

Access to the full range of equipment involved in integrated continuous manufacturing operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in

EVIDENCE GUIDE

a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency e.g. gas
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate
- minimising water usage

RANGE STATEMENT

- Environmental and resource efficiency may include:

 - minimising chemical usage
 - chain of custody requirements
 - minimisation of environmental risks and maximisation of opportunities to improve business environmental performance and outputs and to promote more efficient production and consumption of natural resources, for example by:
 - minimising waste, less landfill, less water contaminants, efficient energy use, efficient water use
- Legislation, regulatory, licensing and certification requirements may include:

 - OHS and environmental requirements (local, state and commonwealth)
- Workplace plans may include:

 - documented policies and procedures
 - work plans to minimise waste, increase efficiency of water use etc.
 - SOP
- Suggestions may include ideas that help to:

 - prevent and minimise risks and maximise opportunities such as usage of alternative forms of energy where appropriate
 - reduce emissions of greenhouse gases
 - reduce use of non-renewable resources
 - improve energy efficiency
 - increase use of renewable, recyclable, reusable and recoverable resources

Unit Sector(s)

Not Applicable

FPPSUS510A Develop workplace policy and procedures for sustainability

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to develop and implement workplace sustainability policies and procedures, including the modification of the policy and procedures to suit changed circumstances

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

Application of the Unit

Application of the unit

The unit involves the development of workplace policy and procedures for sustainability including environmental, economic and social aspects of sustainability

This unit generally applies to those who work in the pulp and paper manufacturing industry, enabling them to meet safety, quality and productivity requirements

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop workplace sustainability policy and procedures	<p>1.1. Applicable <i>Occupational Health and Safety</i> (OHS), environmental, <i>legislative</i> and <i>organisational requirements</i> relevant to developing a workplace sustainability policy and procedures are identified and followed</p> <p>1.2. Scope of sustainability policy is defined</p> <p>1.3. Stakeholders are identified and consulted as a key component of the policy and procedures development process</p> <p>1.4. Strategies for minimising resource use, reducing toxic material and hazardous chemical use and the employment of life cycle management approaches at all stages of work are considered</p> <p>1.5. Recommendations for policy options are made based on costs and benefits, likely effectiveness and timeframes</p> <p>1.6. Policy that reflects the organisation's commitment to sustainability as an integral part of the business planning and as a business opportunity is developed</p> <p>1.7. Appropriate methods of implementation are developed</p> <p>1.8. Stakeholder consultation is conducted on the draft policy and procedures and feedback are documented and considered</p> <p>1.9. Final policies and procedures are developed and circulated to stakeholders</p>
2. Seek endorsement of the policy and procedures from relevant decision makers	<p>2.1. Relevant decision makers/decision making forums regarding sustainability policies and procedures are identified</p> <p>2.2. Accompanying submission for approval including stakeholder consultations is developed</p> <p>2.3. Policy, procedures and related documentation including the supporting submission and communications plan is presented for approval</p> <p>2.4. Alterations are made to documents as required</p>
3. Communicate	3.1. Personnel involved in implementing the policy are

ELEMENT	PERFORMANCE CRITERIA
workplace sustainability policy	informed in line with the communications plan
	3.2. Workplace sustainability policy and procedures are communicated in line with the endorsed communications plan
4. Implement workplace sustainability policy	4.1. Policy outcomes are monitored and recorded to determine their effectiveness and identify trends that may require remedial action
	4.2. Strategies for continuous improvement in resource efficiency are implemented
5. Review workplace sustainability policy implementation	5.1. Policy outcomes are reviewed and feedback is provided to appropriate personnel and stakeholders
	5.2. Success or otherwise of policy is investigated
	5.3. Stakeholders are consulted
	5.4. Policy and procedures are modified as required and approval sought for modifications, to facilitate improvements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Adjusts communication to suit different audiences; responds effectively to diversity; works as a team member to consult on and validate policy
- Reads and evaluates complex and formal documents such as policy and legislation
- Effectively manages different points of view and dissenting stakeholders
- Researches, analyses and presents information; prepares written reports requiring precision of expression; uses language suited to the intended audience

Required knowledge

- Procedures, regulations and legislative requirements including OHS, environmental including relevant sustainability requirements/practices, SOP, safe working

REQUIRED SKILLS AND KNOWLEDGE

requirements, risks and hazard identification

- Relevant organisational policies, procedures and protocols
- Relevant systems and procedures to aid in the achievement of workplace sustainability
- Best practice approaches relevant to the organisation
- Policy development processes and practices
- Principles, practices and available tools and techniques of sustainability management relevant to the pulp and paper industry
- Quality assurance systems relevant to own organisation
- Relevant industry competency
- Upstream/downstream impacts of the application of sustainable work practices

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices
- applicable aspects of the range statement
- practical workplace demonstration of skills

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge in the workplace
- the application of skills in the workplace over time and under a range of typical conditions that may be experienced in pulp or paper mill operations

Access is required to a range of office based equipment relevant to policy development, workplace documentation, personnel, information and resources

EVIDENCE GUIDE

needed to develop and implement workplace policies, procedures and associated documents in a pulp or paper mill

Evidence must be relevant to the particular workplace role

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job e.g. conduct of and presentations to stakeholder meetings, stakeholder consultation and feedback
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge including 'what would you do if...' questions
- third-party reports from relevant and skilled personnel e.g. appropriately skilled stakeholders
- written evidence e.g. workplace projects, policies, procedures and associated documents; outline of the approach taken to develop and/or review policies, procedures and associated documents; reports on the review of policy outcomes; relevant question/answer sheets

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency e.g. gas
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate
- minimising water usage
- minimising chemical usage
- chain of custody requirements

Environmental and resource efficiency may include:

- minimisation of environmental risks and maximisation of opportunities to improve business environmental performance and outputs and to promote more efficient production and consumption of natural resources, for example by:
 - minimisation of waste, less landfill, less water contaminants, efficient energy use, efficient water use

Scope of sustainability policy may include:

- an integrated approach to sustainability which includes environmental, economic and social aspects, or a narrower one to focus on each aspect individually
- the parts of the workplace to which it is to apply, including whether it is for the whole

RANGE STATEMENT

- enterprise, one site, one work area or combinations of these
- addressing sustainability initiatives through reference to standards, guidelines and approaches such as:
 - ecological footprint assessment
 - product stewardship
 - triple bottom line reporting
 - Global Reporting Initiative
 - ISO 14001 Environmental Management Systems
 - lifecycle analyses
- Stakeholders may include:
- an investigation of the particular business and market context of the industry/workplace
 - individuals and groups both inside and outside the organisation that have some direct interest in the workplace's conduct, actions, products and services, including:
 - employees at all levels of the workplace
 - customers
 - suppliers
 - regulators
 - other organisations
 - local community
- Strategies may include:
- promotional activities
 - raising awareness amongst stakeholders
 - training staff in sustainability principles and techniques
- Policies and procedures are to be comprehensive and will include, but not be limited to:
- identification of expected outcomes
 - activities to be undertaken
 - assignment of responsibilities
 - a communications strategy involving all stakeholders including those responsible for implementation
 - a continuous improvement strategy

Unit Sector(s)

Not Applicable

FPPWAR250A Store product

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to store product in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who store product in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- prepare to store product, and
- store product

to meet safety, quality and productivity requirements

It does not include dispatching or packaging product

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to store product	1.1. Product is prepared for storage within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Load or product documentation is received, interpreted and verified 1.3. Load and handling characteristics are identified 1.4. Appropriate mechanical handling equipment is selected 1.5. Pre-start check is conducted on mechanical handling equipment
2. Store product	2.1. Product is stored within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Mechanical handling equipment is used to lift, carry and set down load 2.3. Load is stored at the specified location in compliance with other storage requirements 2.4. Product quality faults are identified by observation 2.5. Non-conforming product is actioned 2.6. Situational awareness is maintained in storage areas 2.7. Housekeeping is completed 2.8. Inventory records documentation is completed

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in storing product
- Reads and interprets required documentation, procedures and reports
- Accesses and navigates and enters computer based information required for storing of product including:
 - maintaining inventory systems

REQUIRED SKILLS AND KNOWLEDGE

- recording non-conforming product
- entering customer orders
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with individuals and teams
- Identifies and actions problems within level of responsibility
- Identifies and rectifies product storage problems or faults
- Identifies causes and effects of equipment or system faults and takes corrective action
- Identifies and monitors storage areas
- Dispatches product to warehouse
- Implements isolation and lockout procedures for equipment within loading and unloading bays
- Maintains situational awareness in the work area
- Operates required materials handling equipment
- Maintains required materials handling equipment
- Operates high risk equipment as required
- Analyses and uses sensory information to maintain safety, quality and productivity
- Uses electronic and other control systems when storing product as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to storing product including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Causes and effects of equipment or system faults and required corrective action
- Working knowledge of product storage processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Warehouse organisation and workflow
- Warehousing procedures
- Purposes for stock rotation of stored products
- Inventory systems
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control storage of product

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in storing product

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in storing product

Access to the full range of equipment involved in product storage operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- Plant, systems and equipment may include
- materials handling equipment including:
 - fork-lift and attachments
 - pallet truck
 - gantry crane
 - poly-wrapper
 - labelling system
 - RF (radio frequency) guns or barcode scanners
 - sweeper
 - transport equipment including trucks and trailers
 - ramps and dock levellers
 - wrapping and packing
 - guillotine, knives and cutting equipment
 - conveying systems
 - processes equipment (manual, motorised)
 - overhead cranes
 - scales

RANGE STATEMENT

- roll grab attachments
- robots
- palletising plant
- warehousing control systems
- electronic, pneumatic and hydraulic process controls
- computer systems
- electronic screens and alarms

Materials and supplies may include:

- slip sheets
- plywood
- container boxes (shippers)
- security seals
- shrink and stretch wraps
- pallets
- sheet paper
- signs and labels
- rolls
- compressed air

Product may include:

- unitised pallets
- customer rolls and reels
- cartons
- polybundles

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk licensing requirements
- freight transport legislation including load limits and restraint, driver fatigue and train of responsibility

Documentation, procedures and reports may include:

- production and packaging schedules
- quality procedures and quality assurance documentation including ISO 9002
- environmental sustainability requirements/practices

RANGE STATEMENT

- plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - work orders
 - SOP
 - customer orders
 - Material Safety Data Sheets (MSDS)
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance supplies
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Quality assessments as per site requirements may include:
- date coding
 - damaged packaging
 - sheet size
 - roll appearance
 - print quality
 - roll size
 - product identification
 - warehousing records
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include
- interaction with:
- product storage co-ordinator
 - senior operators
 - drivers
 - internal/external customers and suppliers
 - maintenance services

RANGE STATEMENT

- team members
- production/services co-ordinator
- operational management
- statutory authorities

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWAR255A Prepare and dispatch product

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to prepare and dispatch product in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who prepare and dispatch product in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- analyse order to identify work requirements
- prepare goods for dispatch
- dispatch product, and
- finalise documentation

to meet safety, quality and productivity requirements

It does not include packaging or storage of product

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse order to identify work requirements	1.1. Order is analysed to identify work requirements within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Order request and consignment note documentation is interpreted 1.3. Required schedules for despatch are identified 1.4. Products in order are identified 1.5. Workplace and product knowledge is used to plan sequence of work 1.6. Appropriate materials handling equipment is selected within timeframe for the despatch
2. Prepare goods for dispatch	2.1. Goods are prepared for dispatch within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Goods for dispatch are selected, checking against product knowledge, labels and other identification systems 2.3. Products are sorted, assembled and placed in storage or dispatch zones, in accordance with schedule 2.4. Order are placed in storage or dispatch zones in accordance with schedule 2.5. Order is checked against dispatch schedule and order form
3. Dispatch product	3.1. Product is dispatched within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Load requirements are communicated to carriers representative 3.3. Products are loaded for dispatch using required materials handling equipment 3.4. Damaged product is identified and processed during loading 3.5. Checks are made with the carrier to confirm the load has been secured
4. Finalise documentation	4.1. Documentation is checked and finalised within OHS regulations, environmental and safe working

ELEMENT**PERFORMANCE CRITERIA**

requirements/practices, SOP, and housekeeping requirements

4.2. Final check of documentation is completed

4.3. Security seals are attached as required

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and dispatching product
- Reads and interprets required documentation, procedures and reports
- Accesses and navigates and enters computer based information required for the dispatch of product including:
 - maintaining inventory systems
 - recording non-conforming product
 - entering customer orders
- Communicates effectively with individuals and teams
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and rectifies faults in dispatch processes
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Selects and loads product to customer requirements
- Implements isolation and lockout procedures for equipment within storage areas
- Operates required materials handling equipment
- Maintains required materials handling equipment
- Operates high risk equipment as required
- Analyses and uses sensory information to maintain safety, quality and productivity
- Uses electronic and other control systems to dispatch product as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to preparing and dispatching product including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Load limits, restraint rules and regulations

REQUIRED SKILLS AND KNOWLEDGE

- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of product dispatch processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Dispatch procedures and responsibilities and quality assurance documentation
- Warehouse organisation and traffic flow systems
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control dispatch of product

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and dispatching product

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in dispatching product

Access to the full range of equipment involved in product dispatch operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- Plant, systems and equipment may include:
- materials handling equipment including:
 - forklift and attachments
 - pallet truck
 - gantry crane
 - poly-wrapper
 - labelling system
 - RF (radio frequency) guns or barcode scanners
 - sweeper
 - transport equipment including trucks and trailers
 - ramps and dock levellers
 - wrapping and packing
 - guillotine, knives and cutting equipment
 - conveying systems
 - processes equipment (manual, motorised)
 - overhead cranes
 - scales

RANGE STATEMENT

- roll grab attachments
 - warehousing control systems
 - electronic, pneumatic and hydraulic process controls
 - computer systems
 - electronic screens and alarms
- Materials and supplies may include:
- slip sheets
 - plywood
 - container boxes (shippers)
 - security seals
 - shrink and stretch wraps
 - pallets
 - sheet paper
 - signs and labels
 - rolls
 - compressed air
- Product may include:
- unitised pallets
 - customer rolls and reels
 - cartons
 - polybundles
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - freight transport legislation including load limits and restraint, driver fatigue and train of responsibility
- Documentation, procedures and reports may include:
- production and packaging schedules
 - quality procedures and quality assurance documentation including ISO 9002
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - work orders

RANGE STATEMENT

Maintenance may include:

- SOP
- customer orders
- Material Safety Data Sheets (MSDS)
- operator level maintenance as per site agreement
- operator maintenance schedules
- maintenance supplies
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Quality assessments as per site requirements may include:

- date coding
- damaged packaging
- sheet size
- roll appearance
- print quality
- roll size
- product identification
- warehousing records

RANGE STATEMENT

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include:

interaction with:

- dispatch co-ordinator
- senior operators
- drivers
- internal/external customers and suppliers
- maintenance services
- team members
- production/services co-ordinator
- operational management
- statutory authorities

Situational awareness may include:

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWAR280A Warehouse product packaging

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to package product in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who package product in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- pack product
- wrap product, and
- label product

to meet safety, quality and productivity requirements

It does not include dispatching or storing product

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Pack product	<ul style="list-style-type: none">1.1. Product is packed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements1.2. Packing requirements are obtained and interpreted for customer order1.3. Packing systems are prepared and operated1.4. Operator level maintenance requirements for packing system are undertaken1.5. Packing system is monitored and controlled and faults corrected1.6. Packing supply levels are maintained1.7. Packing system adjustments for grade changes are undertaken if required
2. Wrap product	<ul style="list-style-type: none">2.1. Product is wrapped within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements2.2. Wrapping requirements are obtained and interpreted for customer order2.3. Wrapping systems are prepared and operated2.4. Operator level maintenance requirements for wrapping system are undertaken2.5. Wrapping system is monitored and controlled and faults corrected2.6. Wrapping supply levels are maintained
3. Label product	<ul style="list-style-type: none">3.1. Product is labelled within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements3.2. Labelling including customer specification and product identification is attached to product3.3. Operator level maintenance requirements for labelling equipment are undertaken3.4. Labelling system is monitored and controlled and faults corrected3.5. Labelling supply levels are maintained

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in packaging product
- Reads and interprets required documentation, procedures and reports
- Accesses and navigates and enters computer based information required for packaging of product including:
 - recording non-conforming product
 - recording faults and related action
 - identifies product and customer specifications
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies causes and effects of equipment or system faults and takes corrective action
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Implements isolation and lockout procedures
- Locates non-conforming product to designated areas
- Operates required materials handling equipment
- Maintains required materials handling equipment
- Operates packaging and wrapping systems
- Inspects and maintains equipment or systems to specification
- Uses measuring equipment as required
- Operates high risk load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment to package product as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to packaging product including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Causes and effects of system faults and rectification requirements

REQUIRED SKILLS AND KNOWLEDGE

- Working knowledge of packaging, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Manual transfer techniques and requirements
- Packaging procedures and responsibilities
- Application of high risk equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control packaging of product

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in packaging product

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in packaging product

Access to the full range of equipment involved in product packaging operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- Plant, systems and equipment may include
- materials handling equipment including:
 - forklift and attachments
 - pallet truck
 - gantry crane
 - poly-wrapper
 - labelling system
 - RF (radio frequency) guns or barcode scanners
 - sweeper
 - transport equipment including trucks and trailers
 - ramps and dock levellers
 - wrapping and packing
 - guillotine, knives and cutting equipment
 - conveying systems
 - processes equipment (manual, motorised)
 - overhead cranes
 - scales

RANGE STATEMENT

- roll grab attachments
 - warehousing control systems
 - electronic, pneumatic and hydraulic process controls
 - computer systems
 - electronic screens and alarms
- Materials and supplies may include:
- slip sheets
 - plywood
 - container boxes (shippers)
 - security seals
 - shrink and stretch wraps
 - pallets
 - sheet paper
 - signs and labels
 - rolls
 - compressed air
- Product may include:
- unitised pallets
 - customer rolls and reels
 - cartons
 - polybundles
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk licensing requirements
 - freight transport legislation including load limits and restraint, driver fatigue and train of responsibility
- Documentation, procedures and reports may include:
- production and packaging schedules
 - quality procedures and quality assurance documentation including ISO 9002
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - work orders

RANGE STATEMENT

- Maintenance may include:
- SOP
 - customer orders
 - Material Safety Data Sheets (MSDS)
 - operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance supplies
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Quality assessments as per site requirements may include:
- date coding
 - damaged packaging
 - sheet size
 - roll appearance
 - print quality
 - roll size
 - product identification
 - warehousing records
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- packaging co-ordinator
 - senior operators
 - drivers
 - internal/external customers and suppliers
 - maintenance services
 - team members
 - production/services co-ordinator
 - operational management
 - statutory authorities

RANGE STATEMENT

Situational awareness may include awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWAS210A Operate water systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to operate water systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and small boat licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who operate water systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- conduct local inspections and pre-operational safety checks
- start up, monitor, control and shut down water systems
- respond to an unplanned shutdown, and
- record and report water systems information

to meet safety, quality and productivity requirements

It does not include troubleshooting and rectifying problems associated with water system operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Conduct local inspections and pre-operational safety checks	1.1. Local inspections and pre-operational safety checks are conducted within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Isolations are removed 1.3. Availability of supplies for water system is confirmed 1.4. Plant status and requirements are determined 1.5. Sequencing for plant startup is confirmed
2. Start up water systems	2.1. Water systems are started up within OHS, housekeeping, SOP, environmental and safe working requirements and practices 2.2. Water system is started up 2.3. Water system is observed for correct startup operational response 2.4. Startup variation conditions are detected and corrective action taken
3. Monitor and control water systems	3.1. Water systems are monitored and controlled within OHS, housekeeping, SOP, environmental and safe working requirements and practices 3.2. Water system operation is monitored 3.3. Water samples are taken and tested to maintain quality as required 3.4. Routine checks of water systems are conducted as required 3.5. Variations from operational parameters are identified 3.6. Action is taken to restore water system to standard operational parameters 3.7. Operator level maintenance is conducted as required
4. Conduct a water system shutdown	4.1. Water system shutdown is conducted within OHS, housekeeping, SOP, environmental and safe working requirements and practices 4.2. Shutdown plan is confirmed and communicated to relevant personnel 4.3. Shutdown procedures are implemented 4.4. Plant is left in a safe condition for isolation as required
5. Respond to an	5.1. Unplanned shutdown is responded to within OHS,

ELEMENT	PERFORMANCE CRITERIA
unplanned shutdown	housekeeping, SOP, environmental and safe working requirements and practices 5.2.Cause of shutdown is identified and actioned as required 5.3.Sequence for systems shutdown of plant is completed 5.4.Action taken is communicated to relevant personnel 5.5.Plant is left in a safe condition for isolation as required
6. Record and report water systems information	6.1.Water systems information is recorded and reported within OHS, housekeeping, SOP, environmental and safe working requirements and practices 6.2.Water systems information is recorded as required 6.3.Problems and related action are recorded and communicated to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in operating water systems
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results, if required
- Identifies and monitors process control points
- Plans and organises startup and shutdown of water systems
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Maintains situational awareness in the work area
- Operates a small boat as required
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process maintain and co-ordinate safety, quality and productivity

REQUIRED SKILLS AND KNOWLEDGE

- Uses electronic control and other systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to water system operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Quality requirements
- Working knowledge of water system, plant, processes, layout and associated services sufficient to carry out startup and shutdown activities within level of responsibility
- Types, causes and effects of water system shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Effects of shutdowns on the rest of the systems
- Sensory information that indicates a deviation from standard operating parameters
- Application of small boat operation requirements
- Application of high risk equipment, as required
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the water system, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in the operation of water systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating water systems

Access to the full range of equipment involved in integrated continuous operation of water systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Water system may include:

- de-alkalinisation plant
- de-mineralisation plant
- water softening plant
- chemical treatment plant
- reverse osmosis plant
- clarifier plant
- chillers
- water storage systems
- filtration systems
- cooling towers
- condensers
- potable water plant

Water sources may include:

- raw water
- mains water
- recycled water

Water types may include:

- fresh water
- treated water
- de-mineralised water
- softened water
- filtrate-clarified water
- potable water
- dilution water (filtrate) ex-vacuum system
- waste water (effluent)
- white water (ex-machine)
- cloudy water

Materials and supplies may include:

- chemicals
- filtering mediums

Equipment may include:

- flow control and metering devices
- pumping systems
- electronic and digital monitoring and metering
- valving systems
- recording systems
- pipes
- fittings
- chemical testing and analysis equipment
- chemical dosing equipment
- tanks and chests
- cranes and hoists
- communication equipment

RANGE STATEMENT

- aeration ponds
 - chemical handling equipment
 - hand and power tools
 - pest control equipment
 - load shifting equipment
 - small boat
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to water processes and systems
 - analogue and digital instrumentation
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks in water systems may include:
- confined space
 - hazardous chemicals and materials
 - biological hazards
 - environmental hazards
 - heat
 - height
 - slippery surfaces
 - pressures
 - fumes
 - electrical
 - compressed air
 - nip points
 - flooding
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk and small boat licensing requirements
 - water and chemical legislation and regulations
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - confined space requirements

RANGE STATEMENT

- vendor documentation
 - reference manual
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - housekeeping
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - maintenance logs
 - job sheets
 - operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Sampling and testing may include checks of:
- sludge consistency
 - pH
 - conductivity
 - flocculation
 - colour
 - suspended solids
 - caustic strength
 - alkalinity
 - impurities
 - brine
 - bacteria
 - colour
 - acid strength
- Communications may include interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services

RANGE STATEMENT

- operational management
 - statutory authorities
- Situational awareness may include
- awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstructions
 - unexpected movement
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWAS340A Troubleshoot and rectify water systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify water systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and small boat licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify water systems in the pulp and paper industry

This unit generally applies to those who:

- identify and analyse causes of faults
- rectify plant and equipment faults
- rectify water quality faults, and
- record and report water system information

to meet safety, quality and productivity requirements

It does not include starting up, monitoring and controlling or shutting down water systems

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Identify and analyse causes of faults

- 1.1. Causes of faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements
- 1.2. Visual checks are conducted
- 1.3. Alarms and visual checks are interpreted to determine fault type
- 1.4. Sampling and testing results are interpreted to identify variations from specifications
- 1.5. Cause and source of problem is identified and located using appropriate analysis
- 1.6. Relevant sources of information are accessed to assist analysis

ELEMENT	PERFORMANCE CRITERIA
2. Rectify plant and equipment faults	<p>2.1. Plant and equipment faults are rectified within OHS, housekeeping, SOP, environmental and safe working requirements and practices</p> <p>2.2. Equipment is shut down and isolation procedures are implemented prior to fault rectification as required</p> <p>2.3. Faulty equipment is identified and repaired or replaced</p> <p>2.4. Running adjustments and operator level maintenance are carried out</p> <p>2.5. Plant and equipment are returned to normal operation</p> <p>2.6. Restoration to normal operation is verified and communicated to relevant personnel</p>
3. Rectify water quality faults	<p>3.1. Water quality faults are rectified within OHS, housekeeping, SOP, environmental and safe working requirements and practices</p> <p>3.2. Quality faults or variations are identified by observation, systematic sampling and testing</p> <p>3.3. Samples for a range of tests are taken</p> <p>3.4. Test results are interpreted and operational adjustments made as required</p> <p>3.5. Faults are rectified or recommendations made for further action as required</p> <p>3.6. Out-of-specification water is actioned as required</p>
4. Record and report water system information	<p>4.1. Water system information is recorded and reported within OHS, housekeeping, SOP, environmental and safe working requirements and practices</p> <p>4.2. Variations from specification are documented</p> <p>4.3. Performance variations are documented</p> <p>4.4. Causes of deviation and corrective action undertaken is recorded as required</p> <p>4.5. Relevant information is communicated to appropriate personnel</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills

- Uses required forms of communication in troubleshooting and rectifying water systems
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Assists others to identify and resolve operational problems in the workplace
- Takes samples, conducts tests, interprets and records results if required
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Identifies, accesses and interprets relevant historical and operational data and information
- Follows procedures for the handling of chemicals and hazardous materials
- Uses measuring equipment as required
- Maintains water quality to specification
- Maintains situational awareness in the work area
- Operates a small boat as required
- Operates high risk equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic control and other systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to troubleshooting and rectifying water systems including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Use and handling requirements of chemicals used; their purpose, effects, MSDS and SOP
- Relevant forms of communication
- Detailed knowledge of water system plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation

REQUIRED SKILLS AND KNOWLEDGE

- causes and effects of adjustments made to water systems and processes
- relationships between water system, plant and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Sensory information that indicates a deviation from standard operating parameters
- Application of small boat operation requirements
- Application of high risk equipment as required
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the water system, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying water systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in operating water systems

Access to the full range of equipment involved in integrated continuous operation of water systems in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Water system may include:

- de-alkalinisation plant
- de-mineralisation plant
- water softening plant
- chemical treatment plant
- reverse osmosis plant
- clarifier plant
- chillers
- water storage systems
- filtration systems
- cooling towers
- condensers
- potable water plant

Water sources may include:

- raw water
- mains water
- recycled water

Water types may include:

- fresh water
- treated water
- de-mineralised water
- softened water
- filtrate-clarified water
- potable water
- dilution water (filtrate) ex-vacuum system
- waste water (effluent)
- white water (ex-machine)
- cloudy water

Materials and supplies may include:

- chemicals
- filtering mediums

Equipment may include:

- flow control and metering devices
- pumping systems
- electronic and digital monitoring and metering
- valving systems
- recording systems
- pipes
- fittings
- chemical testing and analysis equipment
- chemical dosing equipment
- tanks and chests
- cranes and hoists
- communication equipment
- aeration ponds

RANGE STATEMENT

- chemical handling equipment
 - hand and power tools
 - pest control equipment
 - load shifting equipment
 - small boat
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to water processes and systems
 - analogue and digital instrumentation
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks in water systems may include:
- confined space
 - hazardous chemicals and materials
 - biological hazards
 - environmental hazards
 - heat
 - height
 - slippery surfaces
 - pressures
 - fumes
 - electrical
 - compressed air
 - nip points
 - flooding
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk and small boat licensing requirements
 - water and chemical legislation and regulations
 - safety instructions
- Documentation, procedures and reports may include:
- SOP
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - confined space requirements
 - vendor documentation

RANGE STATEMENT

- reference manual
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams

RANGE STATEMENT

Maintenance may include:

- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Sampling and testing may include checks of:

- sludge consistency
- pH
- conductivity
- flocculation
- colour
- suspended solids
- caustic strength
- alkalinity
- impurities
- brine
- bacteria
- colour
- acid strength

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities
- internal/external customers and suppliers

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

RANGE STATEMENT

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWEO210A Monitor and control wet end operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control wet end operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control wet end operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and control process and systems
- control product quality
- conduct product grade change, and
- record process and system information

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying problems associated wet end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and control process and systems	1.1. Process and systems are monitored and controlled within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan daily activities as required 1.3. Operational status is confirmed by inspection, observation and other information 1.4. Process supplies are maintained and controlled to meet production requirements 1.5. Systems are monitored to ensure wet end operations are within parameters 1.6. Process and system variations from operating parameters are identified, rectified and/or reported 1.7. Operator level preventative maintenance is undertaken as required 1.8. Changes to machine operations are communicated to relevant personnel 1.9. Sheet breaks are detected and sheet re-established as required
2. Control product quality	2.1. Controlling product quality is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Sheet is monitored and controlled to quality requirements 2.3. Test samples taken and test results interpreted and recorded as required 2.4. Adjustments are made to control quality requirements 2.5. Changes to product requirements are communicated to relevant personnel 2.6. Routine observations and assessments are conducted on product and system operation
3. Conduct product grade change	3.1. Product grade change is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Grade change requirements are determined and

ELEMENT	PERFORMANCE CRITERIA
	<p>planned</p> <p>3.3.Out of stock, chemical and water systems are co-ordinated and completed as required</p> <p>3.4.Wet end systems are shut down as required</p> <p>3.5.Flushing, draining and cleaning of stock, chemicals and water systems are completed as required</p> <p>3.6.Process setups and/or adjustments are implemented to meet new grade requirements</p> <p>3.7.Raw materials and supplies required for new grade requirements are staged ready for use</p> <p>3.8.Stock, chemical and water systems startups are coordinated with other sections and implemented for new grade requirements as required</p> <p>3.9.Grade change is coordinated with other sections and implemented on the run as required</p>
4. Record process and system information	<p>4.1.Recording process and system information is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2.Systems and production information is recorded</p> <p>4.3.Problems or variations in performance are recorded and communicated</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling wet end operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Takes samples, conducts tests, interprets and records results
- Uses measuring equipment as required
- Identifies and monitors process control points

REQUIRED SKILLS AND KNOWLEDGE

- Maintains situational awareness in the work area
- Interprets and plans grade change requirements
- Co-ordinates and conducts grade changes
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to wet end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Wet end in-process tests and procedures
- Working knowledge of wet end plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Quality requirements
- Grade requirements
- Materials and supplies and how they influence paper properties
- Grade change processes and co-ordination
- Timing for materials and supplies run out
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control the wet end operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling wet end operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in wet end operations

Access to the full range of equipment involved in integrated continuous manufacturing wet end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Systems and functions in wet end operations may include:

- stock approach systems
- forming system
- pressing systems
- cleaning and screening system

Materials and supplies may include:

- water
- air
- stock
- chemicals
- additives
- steam
- machine clothing
- baled pulp

Equipment may include:

- screens
- forming section
- water, chemical, vacuum or stock systems
- former
- pumps
- consistency meter
- flow meter
- refiner
- control valves
- cleaning showers
- chemical showers
- presses
- cleaners
- waste hood recovery unit
- computer systems
- electronic screens and alarms
- process control systems
- fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Hazards and risks involved in wet end operations may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces

RANGE STATEMENT

- electrical
 - entanglement
 - vehicle movement
 - slip hazards/falls
 - energy
 - pressures
 - chemicals
 - fumes
 - confined spaces
 - dust
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - site policy and procedures
 - environmental sustainability requirements/practices
 - plant manufacturing operating manuals
 - confined space requirements
 - vendor documentation
 - reference manual
 - grade specifications
 - quality procedures
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - housekeeping
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - maintenance logs
 - job sheets
 - operating log
 - production instructions
 - Materials Safety Data Sheets (MSDS)
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total

RANGE STATEMENT

	Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
Actions may include:	<ul style="list-style-type: none">• process adjustments• reporting to authorised person• rectifying problem within level of responsibility
Communications may include	interaction with: <ul style="list-style-type: none">• team members• production/service co-ordinators• internal/external customers and suppliers• maintenance services• operational management• statutory authorities
Situational awareness may include	awareness of: <ul style="list-style-type: none">• traffic• pedestrians• location of equipment• product• hazards• obstructions• unexpected movement
Sensory information may include:	<ul style="list-style-type: none">• visual• sound• feel• touch• smell• vibration• temperature
Forms of communications may include:	<ul style="list-style-type: none">• written e.g. log books, emails, incident and other reports, run sheets, data entry• reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings• verbal e.g. radio skills, telephone, face to face, handover• signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWEO320A Prepare and start up wet end operations

Modification History

Not Applicable

Unit Descriptor

This unit describes the outcomes required to prepare and start up wet end operations in the pulp and paper industry.

Application of the Unit

This unit applies to operators who prepare and start up wet end operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations.

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup
- start up wet end operations, and
- establish startup at the wet end to meet safety, quality and productivity requirements.

It does not include monitoring and controlling, shutting down or troubleshooting and rectifying problems associated with wet end operations.

Licensing/Regulatory Information

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement.

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit.

Pre-Requisites

Not Applicable

Employability Skills Information

This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	<p>1.1 Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements</p> <p>1.2 Planned production requirements are confirmed and communicated to relevant personnel</p> <p>1.3 Availability of machine supplies are confirmed</p>
2. Inspect and prepare systems for startup	<p>2.1 Systems are inspected and prepared for startup within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>2.2 Isolations are removed as required</p> <p>2.3 Operational settings are made and confirmed</p> <p>2.4 Pre-startup checks are completed</p> <p>2.5 Monitoring devices and systems are checked and confirmed operational</p> <p>2.6 Faults are identified and rectified as required</p> <p>2.7 Confirmation for startup is communicated to relevant personnel</p>
3. Start up wet end operations	<p>3.1 Wet end operations are started up within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>3.2 Equipment startups are co-ordinated and implemented</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>3.3 System functions are confirmed by monitoring plant, equipment and control system/display monitors</p> <p>3.4 Process operation is communicated to relevant personnel</p> <p>3.5 Production startup details are documented as required</p>
4. Establish startup at wet end	<p>4.1 Startup is established at wet end within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements</p> <p>4.2 Sheet at wet end is established</p> <p>4.3 Process is monitored and adjustments made as required</p> <p>4.4 System operation, production and quality information is documented as required</p>

Required Skills and Knowledge

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up wet end operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Plans and organises startup
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to wet end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of wet end plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Quality requirements
- Application of high risk (and non-high risk) load shifting equipment, as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control wet end operations, within level of responsibility

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:</p> <ul style="list-style-type: none"> • the required knowledge and skills tailored to the needs of the specific workplace • applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements • applicable aspects of the range statement • practical workplace demonstration of skills in preparing and starting up wet end operations.
<p>Context of and specific resources for assessment</p>	<p>A workplace assessment must be used to assess:</p> <ul style="list-style-type: none"> • the application of required knowledge on the job • the application of skills on the job, over time and under a range of typical conditions that may be experienced in wet end operations <p>Access to the full range of equipment involved in integrated continuous manufacturing wet end operations in a pulp or paper mill is required</p>
<p>Method of assessment</p>	<p>A combination of assessment methods should be used. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • observation of applied skills and knowledge on the job • workplace demonstrations via a mock-up or simulation that replicate part/s of the job • answers to written or verbal questions about specific skills and knowledge • third-party reports from relevant and skilled personnel • written evidence e.g. log sheet entries, checklist entries, test results <p>Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)</p> <p>A holistic assessment with other units relevant to the pulp and</p>

	<p>paper industry, mill and job role is recommended</p> <p>Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package</p>
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:	<ul style="list-style-type: none"> • energy efficiency • waste minimisation • evaporation minimisation, including landfill and waste water reduction • environmentally safe waste disposal • consideration of resource utilisation, including fibre efficiency • minimising delays • chemical recovery maximisation • meeting key performance indicators • line speed • handovers • quality checks • meeting output targets i.e. net tonnes per employee per annum • machine/process time availability i.e. time the machine or process is making product • machine/process production rate
Systems and functions in wet end operations may include:	<ul style="list-style-type: none"> • stock approach systems • forming system • pressing systems • cleaning and screening system
Materials and supplies may include:	<ul style="list-style-type: none"> • water • air • stock • chemicals • additives • steam • machine clothing • baled pulp
Equipment may include:	<ul style="list-style-type: none"> • screens • forming section • water, chemical, vacuum or stock systems • former • pumps

	<ul style="list-style-type: none"> • consistency meter • flow meter • refiner • control valves • cleaning showers • chemical showers • presses • cleaners • waste hood recovery unit • computer systems • electronic screens and alarms • process control systems • fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process
Electronic control systems may include:	<ul style="list-style-type: none"> • Digital Control System (DCS) • touch screens • robotics
Hazards and risks involved in wet end operations may include:	<ul style="list-style-type: none"> • steam and/or gas leaks • fires • nip points • compressed air • hot surfaces • electrical • entanglement • vehicle movement • slip hazards/falls • energy • pressures • chemicals • fumes • confined spaces • dust
Legislation, regulatory, licensing and certification requirements may include:	<ul style="list-style-type: none"> • OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk (and non-high risk) load shifting licensing requirements
Documentation, procedures and reports may include:	<ul style="list-style-type: none"> • SOP • site policy and procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • confined space requirements

	<ul style="list-style-type: none"> • vendor documentation • reference manual • grade specifications • quality procedures • oil or chemical spills and disposal guidelines • plant isolation documentation • housekeeping • safe work documentation e.g. plant clearance, job safety analysis, permit systems • maintenance logs • job sheets • operating log • production instructions • Materials Safety Data Sheets (MSDS) • process and instrument diagrams
Maintenance may include:	<ul style="list-style-type: none"> • operator level maintenance as per site agreements • operator maintenance schedules • maintenance systems • maintenance suppliers • pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
Action may include:	<ul style="list-style-type: none"> • process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include interaction with:	<ul style="list-style-type: none"> • team members • production/service co-ordinators • internal/external customers and suppliers • maintenance services • operational management • statutory authorities
Situational awareness may include awareness of:	<ul style="list-style-type: none"> • traffic • pedestrians • location of equipment • product • hazards • obstructions • unexpected movement
Sensory information may include:	<ul style="list-style-type: none"> • visual • sound • feel

	<ul style="list-style-type: none">• touch• smell• vibration• temperature
Forms of communications may include:	<ul style="list-style-type: none">• written e.g. log books, emails, incident and other reports, run sheets, data entry• reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings• verbal e.g. radio skills, telephone, face to face, handover• non-verbal e.g. hand signals, alarms, observations• signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWEO330A Co-ordinate and implement wet end shutdown

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to co-ordinate and implement wet end shutdown in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who co-ordinate and implement wet end shutdown in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess causes and effects of shutdown
- implement shutdown procedures, and
- record and report shutdown information

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or troubleshooting and rectifying problems associated with wet end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess causes and effects of shutdown	1.1. Causes and effects of shutdown are assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Cause of unplanned shutdown is identified and located 1.4. Effects of unplanned shutdown are assessed to determine impact on operations 1.5. Unplanned shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Planned shutdown is implemented 2.3. Unplanned shutdown is responded to and rectified 2.4. Isolation requirements are implemented as required 2.5. Shutdown information is communicated to relevant personnel as required
3. Record and report shutdown information	3.1. Shutdown information is reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded, including corrective action as required 3.3. Shutdown information is reported to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and implementing wet end

REQUIRED SKILLS AND KNOWLEDGE

operations shutdown

- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Identifies and responds appropriately to shutdown causes
- Respond to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to wet end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Types, causes and effects of wet end shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Working knowledge of wet end plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control wet end operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and implementing of wet end shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in wet end operations

Access to the full range of equipment involved in integrated continuous manufacturing wet end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Systems and functions in wet end operations may include:
 - machine/process production rate
 - stock approach systems
 - forming system
 - pressing systems
 - cleaning and screening system
- Materials and supplies may include:
 - water
 - air
 - stock
 - chemicals
 - additives
 - steam
 - machine clothing
 - baled pulp
- Equipment may include:
 - screens
 - forming section
 - water, chemical, vacuum or stock systems
 - former
 - pumps
 - consistency meter
 - flow meter
 - refiner
 - control valves
 - cleaning showers
 - chemical showers
 - presses
 - cleaners
 - waste hood recovery unit
 - computer systems
 - electronic screens and alarms
 - process control systems
 - fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process
- Electronic control systems may include:
 - Digital Control System (DCS)
 - touch screens
 - robotics
- Hazards and risks involved in wet end operations may include:
 - steam and/or gas leaks
 - fires
 - nip points
 - compressed air

RANGE STATEMENT

- hot surfaces
- electrical
- entanglement
- vehicle movement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

RANGE STATEMENT

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)
- process and instrument diagrams
- operator level maintenance as per site agreements
- operator maintenance schedules
- maintenance systems
- maintenance suppliers
- pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)

Maintenance may include:

RANGE STATEMENT

Actions may include:

- process adjustments
- reporting to authorised person
- rectifying problem within level of responsibility

Communications may include

interaction with:

- team members
- production/service co-ordinators
- internal/external customers and suppliers
- maintenance services
- operational management
- statutory authorities

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWEO440A Troubleshoot and rectify wet end systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify wet end systems in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who troubleshoot and rectify wet end systems in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse the causes of systems and quality faults
- rectify systems, equipment faults
- rectify product quality faults, and
- record and report process performance and product quality data

to meet safety, quality and productivity requirements

It does not include monitoring and controlling, starting up or shutting down wet end operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of systems and quality faults	1.1. Causes of system and quality faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Alarm systems and observations are interpreted to determine fault type and location 1.3. Routine inspections of plant and processes are made to identify faults 1.4. Sampling and testing results are interpreted to identify variations from operating parameters 1.5. Cause and source of problem is identified and located 1.6. Relevant sources of information are accessed and interpreted to assist analysis 1.7. Information is communicated to relevant personnel
2. Rectify systems and equipment faults	2.1. Systems and equipment faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Equipment is shut down and isolated prior to fault rectification, if required 2.3. Faulty equipment is by-passed where the process allows 2.4. Faulty equipment is repaired or replaced as required 2.5. Corrective adjustments are made to equipment 2.6. Operator level maintenance is undertaken as required 2.7. Restoration to normal operation is verified and communicated to relevant personnel
3. Rectify product quality faults	3.1. Product quality faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Product quality faults or variations are identified by observation inspection and testing 3.3. Samples for a range of tests are taken 3.4. Test results are interpreted and processes are adjusted to correct variations from specification
4. Record and report process performance	4.1. Process performance and product quality data is recorded and reported within OHS regulations,

ELEMENT	PERFORMANCE CRITERIA
and product quality data	environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from specifications are documented 4.3. Performance variations are documented 4.4. Corrective actions are recorded 4.5. Out-of-specification product is dealt with 4.6. Information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying wet end systems
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Assists others to identify and resolve operational problems in the workplace
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Takes samples, conducts tests, interprets and records results
- Uses measuring equipment as required
- Maintains situational awareness in the work area
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity

REQUIRED SKILLS AND KNOWLEDGE

- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to wet end operations including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Use and handling requirements of chemicals used; their purpose, effects, MSDS and SOP
- Relevant forms of communication
- Detailed knowledge of wet end plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to wet end plant and processes
 - relationships between wet end plant, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Causes and effects of unplanned shutdown and appropriate responses
- Mill maintenance system as it applies to wet end plant and processes
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control wet end operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying wet end systems

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in wet end operations

Access to the full range of equipment involved in integrated continuous manufacturing wet end operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Systems and functions in wet end operations may include:

- stock approach systems
- forming system
- pressing systems
- cleaning and screening system

Materials and supplies may include:

- water
- air
- stock
- chemicals
- additives
- steam
- machine clothing
- baled pulp

Equipment may include:

- screens
- forming section
- water, chemical, vacuum or stock systems
- former
- pumps
- consistency meter
- flow meter
- refiner
- control valves
- cleaning showers
- chemical showers
- presses
- cleaners
- waste hood recovery unit
- computer systems
- electronic screens and alarms
- process control systems
- fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process

Electronic control systems may

- Digital Control System (DCS)

RANGE STATEMENT

include:

- touch screens
- robotics

Hazards and risks involved in wet end operations may include:

- steam and/or gas leaks
- fires
- nip points
- compressed air
- hot surfaces
- electrical
- entanglement
- vehicle movement
- slip hazards/falls
- energy
- pressures
- chemicals
- fumes
- confined spaces
- dust

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- site policy and procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- confined space requirements
- vendor documentation
- reference manual
- grade specifications
- quality procedures
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- housekeeping
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- maintenance logs
- job sheets
- operating log
- production instructions
- Materials Safety Data Sheets (MSDS)

RANGE STATEMENT

- Maintenance may include:
- process and instrument diagrams
 - operator level maintenance as per site agreements
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - pro-active maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- team members
 - production/service co-ordinators
 - internal/external customers and suppliers
 - maintenance services
 - operational management
 - statutory authorities

RANGE STATEMENT

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstructions
- unexpected movement

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. standard operating procedures, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Unit Sector(s)

Not Applicable

FPPWPO210A Monitor and control waste paper operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to monitor and control waste paper operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk and (non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who monitor and control waste paper operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- monitor and maintain plant and ancillary operations
- control stock quality and specifications, and
- record and document plant performance data

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or troubleshooting and rectifying waste paper operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor and maintain plant and ancillary operations	1.1. Plant and ancillary operations are monitored and maintained within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Production requirements are checked at start of shift to plan the day's activities as required 1.3. Process supplies are maintained to production specifications 1.4. Operational status is confirmed by inspection, observations and other information 1.5. Visual or physical (walk around) inspections of plant and systems are conducted 1.6. Monitoring of screens and gauges is carried out 1.7. Operator level preventative maintenance is carried out as required 1.8. Reject systems are monitored and maintained within operating parameters
2. Control stock quality and specifications	2.1. Control of stock quality and specifications is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Conveyor feeds are monitored and maintained for consistent delivery 2.3. Stock quality is monitored by sampling and testing to ensure production requirements are maintained as required 2.4. Modifications to pulp quality or systems operations are made to rectify out-of-specification stock 2.5. Water distribution systems are monitored and maintained
3. Record and document plant performance data	3.1. Recording and documenting of plant performance data is completed within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Systems and production data is interpreted and recorded in operations log book or entered into computer system 3.3. Problems or variations with systems or product are communicated to relevant personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in monitoring and controlling waste paper operations
- Reads and interprets required documentation, procedures and reports
- Interprets instruments, gauges and data recording equipment
- Accesses, navigates and enters computer-based information
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Sets up and operates test equipment
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Inspects and maintains equipment and systems to specification
- Operates high risk (and non-high risk) load shifting equipment as required
- Operates and maintains plant within specification
- Analyses and uses sensory information to adjust process to maintain safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to waste paper operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Quality requirements
- Relevant forms of communication
- Roles and responsibilities of relevant personnel and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and effects of operational equipment faults
- Working knowledge of waste paper plant, processes, layout and associated services including operating parameters, variation and associated adjustments within level of responsibility
- Purpose and operation of reject system
- Purpose and operation of water systems

REQUIRED SKILLS AND KNOWLEDGE

- Purpose and effects of process variables on production and quality
- Purpose and location of each supply system
- Purpose of the process controls and how changes affect the production variables
- Purpose of each of the steps in the preparation of the waste paper operations system for production
- Purpose of each component of the waste paper operations system
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Navigation of computer control system displays
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control waste paper operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in monitoring and controlling waste paper operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in waste paper operations

Access to the full range of equipment involved in integrated continuous manufacturing of waste paper operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Waste paper operations may include:

- pulping
- screening
- de-watering
- reject systems

Materials and supplies may include:

- waste paper
- air
- chemicals
- broke
- steam
- water
- electricity

Equipment may include:

- broke handling systems
- fork trucks and front end loaders
- cranes
- communication equipment and 2-way radios
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to waste paper operations

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- as applicable, activity or task specific high risk and (non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance,

RANGE STATEMENT

	<ul style="list-style-type: none"> job safety analysis, permit systems • Material Safety Data Sheets (MSDS) • furnish sheets • tally sheets • process and instrument diagrams
Maintenance may include:	<ul style="list-style-type: none"> • operator level maintenance as per site agreement • operator maintenance schedules • maintenance systems • maintenance suppliers • proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
Actions may include:	<ul style="list-style-type: none"> • process adjustments • reporting to authorised person • rectifying problem within level of responsibility
Communications may include	<p>interaction with:</p> <ul style="list-style-type: none"> • internal/external customers and suppliers • team members • maintenance services • operational management •
Situational awareness may include	<p>awareness of:</p> <ul style="list-style-type: none"> • traffic • pedestrians • location of equipment • product • hazards • obstruction • unexpected movement
Forms of communications may include:	<ul style="list-style-type: none"> • written e.g. log books, emails, incident and other reports, run sheets, data entry • reading and interpreting documentation e.g. SOP, manuals, checklists, drawings • verbal e.g. radio skills, telephone, face to face, handover • non-verbal e.g. hand signals, alarms, observations

RANGE STATEMENT

- Sensory information may include:
- signage e.g. safety, access
 - visual
 - sound
 - feel
 - touch
 - smell
 - vibration
 - temperature

Unit Sector(s)

Not Applicable

FPPWPO320A Prepare and start up waste paper operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to prepare and start up waste paper operations in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit

This unit applies to operators who prepare and start up waste paper operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- determine production requirements
- inspect and prepare systems for startup
- implement startup operations, and
- establish and stabilise the production and quality processes

to meet safety, quality and productivity requirements

It does not include shutting down, monitoring and controlling or troubleshooting and rectifying waste paper operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine production requirements	1.1. Production requirements are determined within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Furnish type, chemical requirements and supply rate (conveyer loading procedure) are determined and communicated to relevant personnel 1.3. Availability of supplies to meet production requirements are determined 1.4. Readiness and availability of facilities to receive process product and/or by-products is confirmed
2. Inspect and prepare systems for startup	2.1. Systems for startup are inspected and prepared within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Pre-startup checks are completed 2.3. Operational settings are made and confirmed with specification requirements 2.4. Production ready status is confirmed with relevant personnel 2.5. Monitoring devices and systems are checked and confirmed operational 2.6. Identified faults are rectified
3. Implement startup operations	3.1. Startup operations are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Systems are activated and confirmed operational 3.3. Equipment startups are co-ordinated for production 3.4. Systems are monitored and adjusted to rectify variations from specifications 3.5. Process operation is communicated to relevant personnel 3.6. Production startups are logged, recorded or filed
4. Establish and stabilise the production and quality processes	4.1. Production and quality processes are established and stabilised within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 4.2. Systems are monitored and adjusted to rectify

ELEMENT**PERFORMANCE CRITERIA**

- variations from specifications
- 4.3. Samples are taken as required and appropriately actioned
- 4.4. System operation, production and quality data is logged, recorded or filed as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in preparing and starting up waste paper operations
- Reads and interprets required documentation, procedures and reports
- Logs production preparation and startup details as required
- Interprets instruments, gauges and data recording equipment
- Communicates operational requirements clearly to the wet end area personnel
- Confirms production ready status with team members, suppliers and customers
- Accesses, navigates and enters computer-based information
- Interprets and responds to control systems and display alarms in accordance with SOP
- Identifies and actions problems within level of responsibility
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Recognises when raw materials, equipment and personnel are available
- Removes isolations
- Takes samples, conducts tests, interprets and records results if required
- Uses measuring equipment as required
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to waste paper plant operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements,

REQUIRED SKILLS AND KNOWLEDGE

- risks and hazard identification and housekeeping
- Quality requirements
- Relevant forms of communication
- Roles and responsibilities of relevant personnel and customers
- Basic problem-solving techniques consistent with level of responsibility
- Cause and effects of operational equipment faults
- Working knowledge of waste paper plant, processes, layout and associated services sufficient to carry out startup activities within level of responsibility
- Procedures for the preparation of startup
- Purpose of the process controls and how changes affect the production variables
- Purpose and location of each supply system
- Purpose of each of the steps in the preparation of the waste paper operations system for production
- Purpose of each component of the waste paper operations system
- Navigation of computer control system displays
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control waste paper operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in preparing and starting up waste paper operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in waste paper operations

Access to the full range of equipment involved in integrated continuous manufacturing of waste paper operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language and literacy capacity of the learner and the work being

EVIDENCE GUIDE

performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Pre-startup checks may include:	confirmation that: <ul style="list-style-type: none"> • services are available • raw materials are available • equipment and personnel are available • faults are identified
Waste paper operations may include:	<ul style="list-style-type: none"> • pulping • screening • dewatering • reject systems
Materials and supplies may include:	<ul style="list-style-type: none"> • waste paper • air • chemicals • broke • steam • water • electricity
Equipment may include:	<ul style="list-style-type: none"> • broke handling systems • fork trucks and front end loaders • cranes • communication equipment and 2-way radios • computer systems • electronic screens and alarms • process control systems • analogue and digital instruments • fully automated, semi-automated, manually operated plant and equipment appropriate to waste paper operations
Electronic control systems may include:	<ul style="list-style-type: none"> • Digital Control System (DCS) • touch screens • robotics
Legislation, regulatory, licensing and certification requirements may include:	<ul style="list-style-type: none"> • OHS and environmental requirements (local, state and commonwealth) • activity or task specific high risk (and non-high risk) load shifting licensing requirements
Documentation, procedures and reports may include:	<ul style="list-style-type: none"> • SOP • quality procedures • environmental sustainability requirements/practices • plant manufacturing operating manuals • oil or chemical spills and disposal guidelines

RANGE STATEMENT

- plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - Material Safety Data Sheets (MSDS)
 - furnish sheets
 - tally sheets
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreements
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility

RANGE STATEMENT

Communications may include

interaction with:

- internal/external customers and suppliers
- team members
- maintenance services
- operational management

Situational awareness may include

awareness of:

- traffic
- pedestrians
- location of equipment
- product
- hazards
- obstruction
- unexpected movement

Forms of communications may include:

- written e.g. log books, emails, incident and other reports, run sheets, data entry
- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPWPO330A Co-ordinate and implement waste paper shutdown

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to co-ordinate and implement waste paper shutdown in the pulp and paper industry

General legislation, regulatory, licensing and certification requirements applicable to this unit are detailed in the range statement

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who co-ordinate and implement waste paper shutdown in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- assess reason and effects of shutdown
- implement shutdown procedures, and
- record and report shutdown information

to meet safety, quality and productivity requirements

It does not include starting up, monitoring and controlling or troubleshooting and rectifying waste paper operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess reason and effects of shutdown	1.1. Reason and effects of shutdown is assessed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Work area instructions or maintenance schedules are used to co-ordinate a planned shutdown 1.3. Reasons for unplanned shutdown are identified 1.4. Extent of the shutdown on the waste paper plant is assessed 1.5. Effect of the shutdown is communicated as required
2. Implement shutdown procedures	2.1. Shutdown procedures are implemented within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Isolation requirements are implemented as required 2.3. Shutdown is planned, organised and implemented 2.4. Process supply sections of the waste paper plant are shut down
3. Record and report shutdown information	3.1. Shutdown information is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Shutdown information is recorded including corrective actions as required 3.3. Shutdown information is communicated as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Uses required forms of communication in co-ordinating and implementing a waste paper shutdown
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information

REQUIRED SKILLS AND KNOWLEDGE

- Interprets instruments, gauges and data recording equipment
- Identifies and actions problems within level of responsibility
- Identifies and responds appropriately to shutdown causes
- Responds to problems associated with plant shutdown and unplanned shutdown to ensure safety quality and productivity
- Coordinates and plans shutdown activity
- Identifies type, causes and effects of plant shutdown
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Uses measuring equipment as required
- Uses tools and equipment
- Operates high risk (and non-high risk) load shifting equipment as required
- Analyses and uses sensory information to adjust process to maintain and co-ordinate safety, quality and productivity
- Uses electronic control systems to control equipment and processes as required

Required knowledge

- Procedures, regulations and legislative requirements relevant to waste paper operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Basic problem-solving techniques consistent with level of responsibility
- Working knowledge of waste paper plant, processes, layout and associated services sufficient to carry out shutdown activities within level of responsibility
- Types, causes and effects of waste paper plant shutdowns
- Required responses to all unplanned shutdowns (e.g. power outage, mechanical breakdown, blockages, jamming, air supply, control system failure) to ensure safety quality and productivity
- Process and procedures for plant shutdowns and unplanned shutdowns
- Plant and machinery functions and operations
- Emergency procedures and responses
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory and other information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control waste paper operations, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in co-ordinating and implementing waste paper shutdowns

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in waste paper operations

Access to the full range of equipment involved in integrated continuous manufacturing of waste paper operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product
- machine/process production rate

RANGE STATEMENT

Waste paper operations may include:

- pulping
- screening
- de-watering
- reject systems

Materials and supplies may include:

- waste paper
- air
- chemicals
- broke
- steam
- water
- electricity

Equipment may include:

- broke handling systems
- fork trucks and front end loaders
- cranes
- communication equipment and 2-way radios
- computer systems
- electronic screens and alarms
- process control systems
- analogue and digital instruments
- fully automated, semi-automated, manually operated plant and equipment appropriate to waste paper operations

Electronic control systems may include:

- Digital Control System (DCS)
- touch screens
- robotics

Legislation, regulatory, licensing and certification requirements may include:

- OHS and environmental requirements (local, state and commonwealth)
- activity or task specific high risk (and non-high risk) load shifting licensing requirements

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- Material Safety Data Sheets (MSDS)
- furnish sheets
- tally sheets

RANGE STATEMENT

- process and instrument diagrams
 -
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - maintenance services
 - operational management
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communications may include:
- written e.g. log books, emails, incident and other reports, run sheets, data entry
 - reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
 - verbal e.g. radio skills, telephone, face to face, handover
 - non-verbal e.g. hand signals, alarms, observations
 - signage e.g. safety, access
- Sensory information may include:
- visual
 - sound
 - feel
 - touch
 - smell

RANGE STATEMENT

- vibration
- temperature

Unit Sector(s)

Not Applicable

FPPWPO440A Troubleshoot and rectify waste paper operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to troubleshoot and rectify waste paper operations in the pulp and paper industry

Specific high risk (and non-high risk) load shifting licensing requirements for this unit may be applicable and are to be met separately and prior to the achievement of this unit

Application of the Unit

Application of the unit This unit applies to operators who troubleshoot and rectify waste paper operations in the pulp and paper industry. This work typically involves complex integrated equipment and continuous operations

This unit generally applies to those who:

- identify and analyse causes of faults
- rectify plant faults
- rectify product quality faults, and
- record and report system performance and product quality data

to meet safety, quality and productivity requirements

It does not include starting up, shutting down or monitoring and controlling waste paper operations

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and analyse causes of faults	1.1. Causes of faults are identified and analysed within Occupational Health and Safety (OHS) regulations, environmental and safe working requirements/practices, Standard Operating Procedures (SOP), and housekeeping requirements 1.2. Alarms are interpreted to determine fault type and location 1.3. Sampling and testing results are interpreted to identify variations from specifications or schedule 1.4. Causes and sources of fault are identified and located 1.5. Relevant sources of information are accessed and interpreted to assist analysis
2. Rectify plant faults	2.1. Plant faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 2.2. Operator level on-line adjustments are conducted as required 2.3. Plant is shut down and isolation procedures are implemented prior to fault rectification 2.4. Faulty plant is isolated, by-passed, repaired or replaced as required 2.5. Plant is returned to normal operation 2.6. Verification is communicated to relevant personnel
3. Rectify product quality faults	3.1. Product quality faults are rectified within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements 3.2. Quality faults or variations are identified by observation, systematic sampling and testing 3.3. Test results are interpreted and operations are adjusted to correct faults 3.4. Faults and causes are rectified if appropriate or recommendations made for further action 3.5. Out-of-specification product is managed
4. Record and report system performance and product quality data	4.1. System performance and product quality data is recorded and reported within OHS regulations, environmental and safe working requirements/practices, SOP, and housekeeping requirements

ELEMENT**PERFORMANCE CRITERIA**

- 4.2.Process variations and faults are recorded
- 4.3.Stock production and machine operation faults are recorded
- 4.4.Actions undertaken to troubleshoot and rectify faults are recorded
- 4.5.Relevant information is communicated to appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying waste paper operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting as required
- Uses troubleshooting guides and diagnostic procedures
- Demonstrates that stock quality is consistently within specification
- Maintains situational awareness in the work area
- Takes samples, conducts tests, interprets and records results if required
- Operates high risk (and non-high risk) load shifting equipment, as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- Procedures, regulations and legislative requirements relevant to waste paper operation including OHS, environmental including relevant sustainability requirements/practices, SOP, isolation procedures, safe working requirements, risks and hazard identification and housekeeping
- Relevant forms of communication
- Detailed knowledge of waste paper system, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to waste paper plant and processes
 - relationships between waste paper plant system, processes and associated services
- An appropriate range of troubleshooting methods
- Sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- Purpose and operation of reject systems
- Purpose and operation of water systems
- Purpose and effects of process variables on production and quality
- Plant operation and control mechanisms
- Application of high risk (and non-high risk) load shifting equipment as required
- Sensory information that indicates a deviation from standard operating parameters
- Sufficient knowledge of electronic and other control systems, operation and application to make appropriate adjustments that control waste paper operation, within level of responsibility

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence should be relevant to the work. It should satisfy the requirements of the elements and performance criteria and include consideration of:

- the required knowledge and skills tailored to the needs of the specific workplace
- applicable OHS regulations, environmental and safe working requirements/practices, SOP and housekeeping requirements
- applicable aspects of the range statement
- practical workplace demonstration of skills in troubleshooting and rectifying waste paper operations

Context of and specific resources for assessment

A workplace assessment must be used to assess:

- the application of required knowledge on the job
- the application of skills on the job, over time and under a range of typical conditions that may be experienced in waste paper operations

Access to the full range of equipment involved in integrated continuous manufacturing of waste paper operations in a pulp or paper mill is required

Method of assessment

A combination of assessment methods should be used. The following examples are appropriate for this unit:

- observation of applied skills and knowledge on the job
- workplace demonstrations via a mock-up or simulation that replicate part/s of the job
- answers to written or verbal questions about specific skills and knowledge
- third-party reports from relevant and skilled personnel
- written evidence e.g. log sheet entries, checklist entries, test results

Assessment processes and techniques must be culturally appropriate and in keeping with the language

EVIDENCE GUIDE

and literacy capacity of the learner and the work being performed. This includes conducting an assessment in a manner that allows thoughts to be conveyed verbally so that the learner can both understand and be understood by the assessor (e.g. use plain English and terminology used on the job)

A holistic assessment with other units relevant to the pulp and paper industry, mill and job role is recommended

Additional information on approaches to assessment for the pulp and paper industry is provided in the Assessment Guidelines for this Training Package

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Productivity requirements may include:

- energy efficiency
- waste minimisation
- evaporation minimisation, including landfill and waste water reduction
- environmentally safe waste disposal
- consideration of resource utilisation, including fibre efficiency
- minimising delays
- chemical recovery maximisation
- meeting key performance indicators
- line speed
- handovers
- quality checks
- meeting output targets i.e. net tonnes per employee per annum
- machine/process time availability i.e. time the machine or process is making product

RANGE STATEMENT

- Waste paper operations may include:
- machine/process production rate
 - pulping
 - screening
 - de-watering
 - reject systems
- System shutdowns may be caused by:
- product change
 - mechanical failures
 - crash shut
 - full storage or low supply storage
 - maintenance shut
 - process failures
- Materials and supplies may include:
- waste paper
 - air
 - chemicals
 - broke
 - steam
 - water
 - electricity
- Equipment may include:
- broke handling systems
 - fork trucks and front end loaders
 - cranes
 - communication equipment and 2-way radios
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instruments
 - fully automated, semi-automated, manually operated plant and equipment appropriate to waste paper operations
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements
- Documentation, procedures and reports may include:
- SOP
 - quality procedures
 - environmental sustainability requirements/practices

RANGE STATEMENT

- plant manufacturing operating manuals
 - oil or chemical spills and disposal guidelines
 - plant isolation documentation
 - safe work documentation e.g. plant clearance, job safety analysis, permit systems
 - Material Safety Data Sheets (MSDS)
 - furnish sheets
 - tally sheets
 - process and instrument diagrams
- Maintenance may include:
- operator level maintenance as per site agreement
 - operator maintenance schedules
 - maintenance systems
 - maintenance suppliers
 - proactive maintenance strategies e.g. Total Productive Maintenance (TPM), Reliability Centred Maintenance (RCM)
 -
- Actions may include:
- process adjustments
 - reporting to authorised person
 - rectifying problem within level of responsibility
- Communications may include interaction with:
- internal/external customers and suppliers
 - team members
 - maintenance services
 - operational management
- Situational awareness may include awareness of:
- traffic
 - pedestrians
 - location of equipment
 - product
 - hazards
 - obstruction
 - unexpected movement
- Forms of communications may
- written e.g. log books, emails, incident and

RANGE STATEMENT

include:

other reports, run sheets, data entry

- reading and interpreting documentation e.g. SOP, manuals, checklists, drawings
- verbal e.g. radio skills, telephone, face to face, handover
- non-verbal e.g. hand signals, alarms, observations
- signage e.g. safety, access

Sensory information may include:

- visual
- sound
- feel
- touch
- smell
- vibration
- temperature

Unit Sector(s)

Not Applicable

BSBADM405B Organise meetings

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to organise meetings including making arrangements, liaising with participants, and developing and distributing meeting related documentation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals employed in a range of work environments who organise a variety of meetings. They may provide administrative support within an enterprise, or have responsibility for these tasks in the context of a particular team, workgroup or project.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Make meeting arrangements	1.1. Identify <i>type of meeting</i> and its purpose 1.2. Identify and comply with any <i>legal or ethical requirements</i> 1.3. Identify <i>requirements of meeting</i> and participants 1.4. Make meeting <i>arrangements</i> in accordance with requirements of meeting 1.5. Advise participants of meeting details
2. Prepare documentation for meetings	2.1. Prepare notice of meeting, <i>agenda</i> and meeting <i>papers</i> in accordance with meeting requirements 2.2. Check documentation for accuracy and correct any errors 2.3. Distribute documentation to participants within designated time lines 2.4. Prepare spare sets of documents
3. Record and produce minutes of meeting	3.1. Take <i>notes</i> with the required speed and accuracy to ensure an accurate record of the meeting 3.2. Produce <i>minutes</i> that reflect a true and accurate account of the meeting 3.3. Check minutes for accuracy and submit for approval by the nominated person 3.4. Despatch copies of minutes within designated time lines

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to coordinate and consult with participants, to orally present written reports with a number of defined sections, and to clarify points made in meetings
- literacy skills to:
 - write and compile agenda items
 - record minutes
 - make notes from spoken texts in meetings
 - use a variety of strategies for planning, reviewing and proofreading documentation
- time management skills to allow sufficient time to prepare for and conduct meetings.

Required knowledge

- culturally appropriate communication techniques
- formats for agendas and minutes
- key provisions of relevant legislation from all forms of government, standards and codes that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - occupational health and safety.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> organising meetings, including informing participants and preparing materials preparing an agenda taking minutes during a meeting and preparing draft minutes after the meeting.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to an actual workplace or simulated environment access to office equipment and resources.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate review of authenticated documents from the workplace or training environment demonstration of techniques.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> writing units other general administration units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Type of meeting</i> may include:</p>	<ul style="list-style-type: none"> • annual general meeting • board meeting • face-to-face • staff meeting • teleconference • videoconference
<p><i>Legal and ethical requirements</i> may include:</p>	<ul style="list-style-type: none"> • codes of practice • legislation relating to companies or associations • requirements for public meetings
<p><i>Requirements of meeting</i> may include:</p>	<ul style="list-style-type: none"> • meeting structure: <ul style="list-style-type: none"> • formal • informal • self-managed • semi-formal • structured • number of participants • purpose of the meeting • specific needs of participants • specific resources and equipment required by participants e.g. video and data projectors, whiteboards • teleconferencing or videoconferencing meeting protocols and equipment • voting procedures
<p><i>Arrangements</i> may include:</p>	<ul style="list-style-type: none"> • booking an appropriate venue • establishing costs and operating within a budget • organising accommodation and transport • organising appropriate communication technology • organising catering • preparing relevant documentation for

RANGE STATEMENT	
	<ul style="list-style-type: none"> participants • scheduling the date and time for the meeting
<i>Agenda</i> may include:	<ul style="list-style-type: none"> • correspondence • date of next meeting • date, time and location of meeting • general business • major agenda items • matters or business arising from the minutes • minutes of the previous meeting • reports • statement of the meeting's purpose • welcome
<i>Papers</i> may include:	<ul style="list-style-type: none"> • chairperson's report • committee reports • correspondence • draft documentation • financial reports • itemised meeting papers • minutes of previous meeting • research reports
<i>Notes</i> may include:	<ul style="list-style-type: none"> • action items • arrangements for next meeting • decisions taken at the meeting • formal motions • future action • issues raised at the meeting • points discussed at the meeting • record of participants who were present at or absent from the meeting (attendees and apologies) • suggestions made at the meeting
<i>Minutes</i> may include:	<ul style="list-style-type: none"> • meeting details (e.g. title, date, time, location) • agenda items • apologies • names of absent and attending participants • approval of the record of the previous minutes • correspondence • lists rather than complete sentences • matters arising from the previous meetings • other business

RANGE STATEMENT

	<ul style="list-style-type: none"> • reports • date of the next meeting • using organisation templates • using previous minutes to determine required format
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Unit Sector(s)

Unit sector	
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Competency field

Competency field	Administration - General Administration
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Co-requisite units

Co-requisite units		

BSBADM502B Manage meetings

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to manage a range of meetings including overseeing the meeting preparation processes, chairing meetings, organising the minutes and reporting meeting outcomes.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals employed in a range of work environments who are required to organise and manage meetings within their workplace, including conducting or managing administrative tasks in providing agendas and meeting material. They may work as senior administrative staff or may be individuals with responsibility for conducting and chairing meetings in the workplace.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for meetings	1.1. Develop <i>agenda</i> in line with stated <i>meeting purpose</i> 1.2. Ensure style and structure of meeting are appropriate to its purpose 1.3. Identify meeting participants and notify them in accordance with organisational procedures 1.4. Confirm <i>meeting arrangements</i> in accordance with requirements of meeting 1.5. Despatch <i>meeting papers</i> to participants within <i>designated time lines</i>
2. Conduct meetings	2.1. Chair meetings in accordance with organisational requirements, agreed <i>conventions</i> for type of meeting and <i>legal and ethical requirements</i> 2.2. Conduct meetings to ensure they are focused, time efficient and achieve outcomes 2.3. Ensure meeting facilitation enables participation, discussion, problem-solving and <i>resolution</i> of issues 2.4. Brief minute taker on method for recording meeting notes in accordance with organisational requirements and conventions for type of meeting
3. Follow up meetings	3.1. Check transcribed meeting notes to ensure they reflect a true and accurate record of the meeting, and are formatted in accordance with organisational procedures and meeting conventions 3.2. Distribute and <i>store minutes</i> and other follow-up documentation within designated time lines, and according to organisational requirements 3.3. Report outcomes of meetings as required, within designated time lines

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - participate in sustained complex interpersonal exchanges and to interact with others
 - listen to, incorporate and encourage feedback
 - conduct oral presentations to a group, to consult participants and to answer questions
 - manage and work with a group to construct an action plan
 - chair meetings
- literacy skills to:
 - categorise and organise information
 - assess information for relevance and accuracy
 - identify and elaborate on key agenda items and source additional information
- numeracy and time management skills to allow for sufficient meeting preparation
- problem-solving skills to choose appropriate solutions from available options.

Required knowledge

- culturally appropriate techniques to communicate with people from diverse backgrounds and people with diverse abilities
- key provisions of relevant legislation from all forms of government, standards and codes that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - copyright
 - occupational health and safety
- formats for minutes and agendas
- group dynamics
- meeting terminology, structures, arrangements and responsibilities of chairperson
- organisational procedures and policies regarding meetings, chairing and minutes.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • applying conventions and procedures for formal and informal meetings • chairing meetings in relation to agreed agendas.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to reference material in regard to meeting venues, catering, transport suppliers • access to names and contacts for meeting participants • access to office supplies and equipment • access to computers and relevant software.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of minutes, agendas and other communication • review of testimony from team members, colleagues, supervisors or managers.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other general administration units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Agendas</i> may include:	<ul style="list-style-type: none"> • correspondence • date, time and location of meeting • date of next meeting • general business • major agenda items • matters or business arising from the minutes • minutes of the previous meeting • reports • statement of the meeting's purpose • welcome
<i>Meeting purpose</i> may include:	<ul style="list-style-type: none"> • discussion forum for internal or external clients • planning and development of a project • progress of a project • range of business items • setting of enterprise or team goals
<i>Meeting arrangements</i> may include:	<ul style="list-style-type: none"> • booking an appropriate venue • deciding on process for recording of meeting • establishing costs and operating within a budget • identifying any specific needs of participants • organising accommodation and transport • organising appropriate communication technology • organising catering • organising a minute taker • preparing relevant documentation for participants • scheduling date and time for the meeting
<i>Meeting papers</i> may include:	<ul style="list-style-type: none"> • agenda • chairperson's report • correspondence • draft documentation

RANGE STATEMENT	
	<ul style="list-style-type: none"> • financial reports • itemised meeting papers • notice of meeting • previous minutes • research reports
<i>Designated time lines</i> may include:	<ul style="list-style-type: none"> • contractual obligations • formal timeframe set by the organisation • informal timeframe set by the administrative organiser • project time lines • statutory requirements (e.g. for annual general meetings) • timeframe decided by participants
<i>Conventions</i> may include:	<ul style="list-style-type: none"> • casting vote for chairperson • conflict of interest provisions • consensus required • informal discussion • majority of members to agree • moving and seconding formal motions • quorum requirements • restricting discussion to agenda items • speaking through the chairperson • time limit on speakers • waiting to be recognised by the chairperson • voting procedures
<i>Legal and ethical requirements</i> may include:	<ul style="list-style-type: none"> • codes of practice • legislation relating to companies and associations • requirements for public meetings
<i>Resolution</i> may include:	<ul style="list-style-type: none"> • agreeing on a course of action • deferring decisions to another meeting
<i>Storage</i> of minutes and other documentation may include:	<ul style="list-style-type: none"> • authorised access • electronic storage in folders, sub-folders, disk drives, CD-ROM, USBs, tape or server back-up • file names according to organisational procedure • file names which are easily identifiable in relation to the content • file and folder names which identify the

RANGE STATEMENT	
	operator, author, section, date <ul style="list-style-type: none"> • filing locations • organisational policy for backing up files • organisational policy for filing hard copies of documents • security
<i>Minutes</i> may include:	<ul style="list-style-type: none"> • meeting details (e.g. title, date, time, location) • action items • agenda items • apologies and attendees • approval of the record of previous minutes • correspondence • date of the next meeting • formatting from previous minutes • lists rather than complete sentences • matters arising from the previous meetings • names of absent and attending participants • organisation templates • other business • reports • welcome

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Administration - General Administration
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Co-requisite units

Co-requisite units		

BSBAUD501B Initiate a quality audit

Modification History

Not applicable.

Unit Descriptor

<p>Unit descriptor</p>	<p>This unit describes the performance outcomes, skills and knowledge required to initiate and organise a quality audit with an auditee. It covers assessing the scope and objectives of a quality audit; communicating with the auditee regarding the proposed quality audit; identifying resources required to conduct the audit; and developing and submitting a quality audit plan.</p> <p>The types of audit may include an external or internal systems audit or process or product/service audit.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

<p>Application of the unit</p>	<p>This unit applies to individuals with well established, sound theoretical knowledge base in quality auditing who are proficient in using a wide range of specialised quality auditing and managerial techniques to plan, carry out and evaluate a quality audit, their own work and that of others working under their direct supervision in a quality audit team.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess quality audit scope and objectives	1.1. Determine and discuss <i>audit objectives</i> with the auditee, client and all other relevant parties 1.2. Determine and discuss <i>scope</i> of the quality audit with the auditee, client and all other relevant parties 1.3. Identify <i>relevant standards</i> that impact on the environment in which the audit operates 1.4. Determine scope commensurate with identified risks
2. Communicate with auditee regarding proposed quality audit	2.1. Determine audit history, organisational structure and culture through consultation with the auditee 2.2. Negotiate and ensure agreement with auditee, the proposed <i>audit methods and techniques</i> to be applied 2.3. Outline audit processes to establish sequence of audit activities, and the roles of the auditors and auditees in the process
3. Identify resources required to conduct quality audit	3.1. Identify <i>resources</i> required to perform the quality audit efficiently and effectively 3.2. Select audit team members on the basis of relevant expertise 3.3. Confirm availability of resources required to conduct the audit with auditee 3.4. Assign roles and responsibilities to audit team members
4. Develop and submit quality audit plan	4.1. Develop <i>quality audit plan</i> according to established scope and objectives 4.2. Assign timing, schedules and responsibilities for implementation of the audit plan 4.3. Develop audit priorities and ensure agreement with auditees and audit team members 4.4. Document and submit audit plan to auditee
5. Prepare audit team	5.1. Inform audit team members of their responsibilities, audit objectives and scope 5.2. Communicate audit plan and schedules to all audit team members 5.3. Discuss and clarify audit methods and techniques with audit team members
6. Review auditee documentation	6.1. Review auditee's previous audits to establish possible impact on the conduct of the current audit

ELEMENT	PERFORMANCE CRITERIA
	6.2. Review and check relevant organisational documents for accuracy 6.3. Resolve arising problems with auditee and relevant parties
7. Identify and prepare checklists and audit related documentation	7.1. Develop checklists to reflect audit scope and objectives 7.2. Develop or obtain documentation required for the audit 7.3. Prepare agenda for entry meeting 7.4. Include value-adding activities in audit related documentation where required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to listen to and question clients and other audit team members
- culturally appropriate communication skills to relate to people from diverse backgrounds and abilities
- interpersonal skills to establish rapport with clients and to liaise with other audit team members
- literacy skills to read, write, edit and proofread documents to ensure clarity of meaning, accuracy and consistency of information
- organisational, planning and time management skills to sequence tasks, meet time lines, conduct inspections and arrange meetings
- problem-solving skills to overcome any issues which may potentially affect the auditing process or outcome
- teamwork skills
- technology skills to use equipment required to conduct quality auditing activities.

Required knowledge

- auditing codes of practice or ethics
- auditing methods and techniques
- auditing regulations and standards, including:
 - AS/NZS ISO: 9000:2006: Quality management systems - Fundamentals and vocabulary
 - AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing
- current audit practices
- industry, product and/or service knowledge
- quality auditing principles, techniques and systems
- requirements of house or other style manual protocols for written communications
- relevant legislation affecting business operations including appropriate occupational health and safety, environmental, and privacy legislation
- software applications relevant to conducting quality auditing activities
- terminology relating to quality auditing.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> documented audit plans for auditees across a variety of contexts including the scope and objectives of the audit, proposed audit methods and techniques to be used, required resources and schedules, and allocation of individual audit team member responsibilities for conducting the proposed audit knowledge of relevant legislation, national standards and compliance issues.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to workplace documentation including previous quality audit reports, checklists, risk management plans and audit plans.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> direct questioning combined with review of portfolios of evidence by third party workplace reports of on-the-job performance by the candidate review quality auditing documentation demonstration of quality auditing techniques in a workplace observations of interactions with team members and colleagues observations of presentations of audit plans oral or written questioning to assess knowledge of auditing codes of practice or ethics assessment of audit plan.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other quality auditing units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Audit objectives</i> may include:</p>	<ul style="list-style-type: none"> • compliance with contractual and/or legislative requirements • evaluation of follow-up corrective action since previous audit • evaluation of level of compliance of auditee's activities, systems, processes, products or services with quality system's objectives • identifying areas of potential improvement • measuring performance in achieving quality objectives and confirming the effectiveness of the implemented quality system in meeting specified objectives
<p><i>Scope</i> may include:</p>	<ul style="list-style-type: none"> • depth and focus of audit • industry specific issues, for example seasonal factors • legal and regulatory issues • organisational customs and protocols • products, services, processes and/or activities to be audited • sites • standards to be applied
<p><i>Relevant standards</i> may include:</p>	<ul style="list-style-type: none"> • industry standards • professional standards • regulations • relevant legislation
<p><i>Audit methods and techniques</i> may include:</p>	<ul style="list-style-type: none"> • analysis • determining information flows • evaluating the effectiveness of system controls • questioning • sampling • scanning • tracing • trend analysis

RANGE STATEMENT	
Resources may include:	<ul style="list-style-type: none"> • auditee-provided resources • experience and technical expertise of auditors • facilities • financial requirements • number of auditors required • reference materials • time • travel and accommodation
Quality audit plan may include:	<ul style="list-style-type: none"> • audit requirements and/or identification of relevant quality system documentation • auditee provision of personnel for audit • confidentiality requirements • contingency actions • distribution of reports • entry meeting • exit interview • follow-up procedures • measurement criteria • reporting procedures • resource requirements • roles and responsibilities of auditors • safety of auditors • sampling techniques • scope and objectives of audit • time lines and schedules

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Quality Auditing
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Co-requisite units

Co-requisite units		

BSBCMM101A Apply basic communication skills

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals developing basic skills and knowledge of workplace communication in preparation for working in a broad range of settings.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify workplace communication procedures	<p>1.1. Identify organisational communication requirements and <i>workplace procedures</i> with assistance from <i>appropriate people</i></p> <p>1.2. Identify appropriate <i>lines of communication</i> with supervisors and colleagues</p> <p>1.3. Seek advice on the <i>communication method/equipment</i> most appropriate for the task</p>
2. Communicate in the workplace	<p>2.1. Use effective questioning, and active listening and speaking skills to gather and convey information</p> <p>2.2. Use appropriate non-verbal behaviour at all times</p> <p>2.3. Encourage, acknowledge and act upon constructive feedback</p>
3. Draft written information	<p>3.1. Identify relevant procedures and formats for written information</p> <p>3.2. Draft and present assigned <i>written information</i> for approval, ensuring it is written clearly, concisely and within designated timeframes</p> <p>3.3. Ensure written information meets required <i>standards</i> of style, format and detail</p> <p>3.4. Seek assistance and/or feedback to aid communication skills development</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to identify lines of communication, to request advice, to effectively question, to follow instructions, to receive feedback, and to convey messages clearly and concisely
- culturally appropriate communication skills to relate to people from diverse backgrounds and to people with diverse abilities
- literacy skills to identify work requirements, to draft written information and to process basic, relevant workplace documentation
- problem-solving skills to solve routine problems related to the workplace, under direct supervision.

Required knowledge

- key provisions of relevant legislation from all forms of government that may affect aspects of business operations, such as privacy laws
- organisational policies, plans and procedures.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • clear, concise and correct verbal and written communication • promptly and appropriately following instructions • knowledge of relevant legislation.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment and resources • access to examples of documents relating to workplace communication policies and procedures.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • analysis of responses to case studies and scenarios • demonstration of techniques • observation of presentations • oral or written questioning to assess knowledge of organisational policies, plans and procedures • review of written information.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • general administration units.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Workplace procedures</i> may include:</p>	<ul style="list-style-type: none"> • answering telephone calls • following instructions • informal discussions • requests from colleagues • using internet and email • using voice mail • workplace procedures related to specific tasks
<p><i>Appropriate people</i> may include:</p>	<ul style="list-style-type: none"> • colleagues • other staff members • supervisors, mentors, trainers or assessors
<p><i>Lines of communication</i> may include:</p>	<ul style="list-style-type: none"> • formal and informal means • verbal or written
<p><i>Communication method/equipment</i> may include:</p>	<ul style="list-style-type: none"> • computer network systems • facsimile machines • personal computer equipment including hardware, keyboards, software and communication packages • telephones
<p><i>Written information</i> may include:</p>	<ul style="list-style-type: none"> • electronic mail • facsimiles • general correspondence or standard/form letters and memos • handwritten and printed materials • telephone messages or general messages
<p><i>Standards</i> may include:</p>	<ul style="list-style-type: none"> • organisational policies • standards set by workgroup

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Communication - Interpersonal Communication
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Co-requisite units

Co-requisite units		

BSBCMM201A Communicate in the workplace

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to communicate in the workplace. It includes gathering, conveying and receiving information together with completing routine written correspondence.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who perform a range of routine workplace communication tasks using a limited range of practical skills and fundamental knowledge of effective listening, questioning and non verbal communication in a defined context under direct supervision or with limited individual responsibility.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Gather, convey and receive information and ideas	1.1. Collect information to achieve work responsibilities from appropriate sources 1.2. Use method/s and/or <i>equipment</i> to communicate appropriate ideas and information to the audience 1.3. Use effective listening and speaking skills in <i>verbal communication</i> 1.4. Seek input from internal and external sources to develop and refine new ideas and approaches 1.5. Respond to instructions or enquiries promptly and in accordance with <i>organisational requirements</i>
2. Complete workplace documentation and correspondence	2.1. Present <i>written information</i> and ideas in clear and concise language to ensure the intended meaning of <i>correspondence</i> is understood by recipient 2.2. Draft and present correspondence within designated time lines 2.3. Ensure presentation of written information meets organisational <i>standards</i> of style, format and accuracy 2.4. Complete workplace forms and documentation in a clear, concise and easy to read format
3. Communicate in a way that responds positively to individual differences	3.1. Value all individuals and treat them with respect, courtesy and sensitivity 3.2. Take into consideration cultural differences in all verbal and non-verbal communication 3.3. Use communication to develop and maintain positive relationships, mutual trust and confidence 3.4. Make efforts to use basic strategies to overcome language barriers 3.5. Ensure that behaviour is consistent with legislative requirements, enterprise guidelines and/or social protocols

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to request advice, to receive feedback and to work with a team
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities
- literacy skills to identify work requirements, and to understand and process basic workplace documentation
- organisational skills to plan work priorities and arrangements
- technology skills to select and use technology appropriate to communication tasks.

Required knowledge

- key provisions of relevant legislation from all forms of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - occupational health and safety (OHS)
- organisational policies, plans and procedures, especially style guide
- spelling, grammar and punctuation.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • using communication methods appropriate to the audience • producing clear, concise and correct written communication • providing prompt responses to requests for information • knowledge of relevant legislation.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment and resources • examples of workplace documents, including policies and procedures relating to communication.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of written information and ideas • demonstration of techniques • observation of presentations • review of correspondence and completed workplace forms and documentation • assessment of presentation of written information.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other general administration units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Communication <i>equipment</i> may include:	<ul style="list-style-type: none"> • facsimile machines • information technology components including hardware, software and communication packages • keyboard equipment including mouse, touchpad, keyboard • network systems • pens, pencils • telephones
<i>Verbal communication</i> may include:	<ul style="list-style-type: none"> • answering enquiries from clients • answering telephone calls • informal discussions • requests from colleagues • use of voice mail
<i>Organisational requirements</i> may include:	<ul style="list-style-type: none"> • access and equity principles and practice • business and performance plans • defined resource parameters • ethical standards • goals, objectives, plans, systems and processes • legal and organisational policies, guidelines and requirements • OHS policies, procedures and programs • quality and continuous improvement processes and standards • quality assurance and/or procedures manual
<i>Written information</i> may include:	<ul style="list-style-type: none"> • briefing notes • electronic mail • facsimiles • general correspondence • handwritten and printed materials • internal memos • telephone messages

RANGE STATEMENT	
<i>Correspondence</i> may include:	<ul style="list-style-type: none"> • emails • memorandums • messages • proformas • standard/form letters
<i>Standards</i> may include:	<ul style="list-style-type: none"> • Australian Standards • legislation • organisational policies and procedures • specified work standards • standards set by workgroup

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Communication - Interpersonal Communication
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Co-requisite units

Co-requisite units		

BSBCMM401A Make a presentation

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit covers the performance outcomes, skills and knowledge required to prepare, deliver and review a presentation to a target audience.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who may be expected to make presentations for a range of purposes, such as marketing, training, promotions, etc. They contribute well developed communication skills in presenting a range of concepts and ideas.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare a presentation	1.1. Plan and document presentation approach and intended outcomes 1.2. Choose <i>presentation strategies, format and delivery methods</i> that match the <i>characteristics</i> of the target audience, location, resources and personnel needed 1.3. Select <i>presentation aids, materials and techniques</i> that suit the format and purpose of the presentation, and will enhance audience understanding of key concepts and central ideas 1.4. Brief others involved in the presentation on their roles/responsibilities within the presentation 1.5. Select <i>techniques to evaluate presentation effectiveness</i>
2. Deliver a presentation	2.1. Explain and discuss desired outcomes of the presentation with the target audience 2.2. Use presentation aids, materials and examples to support target audience understanding of key concepts and central ideas 2.3. Monitor non-verbal and verbal communication of participants to promote attainment of presentation outcomes 2.4. Use persuasive communication techniques to secure audience interest 2.5. Provide opportunities for participants to seek clarification on central ideas and concepts, and adjust the presentation to meet participant needs and preferences 2.6. Summarise key concepts and ideas at strategic points to facilitate participant understanding
3. Review the presentation	3.1. Implement <i>techniques to review the effectiveness</i> of the presentation 3.2. Seek and discuss reactions to the presentation from participants or from key personnel involved in the presentation 3.3. Utilise feedback from the audience or from key personnel involved in the presentation to make changes to central ideas presented

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities
- facilitation and presentation skills to communicate central ideas of a message in an informative and engaging manner, and to utilise verbal and non-verbal techniques to sustain participant engagement
- literacy skills to prepare presentation information and to write in a range of styles for different target audiences.

Required knowledge

- data collection methods that will support review of presentations
- industry, product/service
- key provisions of relevant legislation from all forms of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - environmental issues
 - occupational health and safety
- principles of effective communication
- range of presentation aids and materials available to support presentations.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • preparation, delivery and evaluation of the effectiveness of at least two presentations related to the candidate's occupation or area of interest • knowledge of the principles of effective communication.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment, documentation and resources.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • demonstration of preparation, delivery and evaluation of a presentation • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of presentations • review of selected presentation aids, materials and techniques • review of briefing provided for others involved in the presentation • evaluation of techniques implemented to review the effectiveness of the presentation.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other general administration units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Presentation strategies</i> may involve:</p>	<ul style="list-style-type: none"> • case studies • demonstration • discussion • group and/or pair work • oral presentations • questioning • simulations and role-play
<p><i>Presentation format and delivery methods</i> may include:</p>	<ul style="list-style-type: none"> • advertising copy • audio • direct marketing copy • individual presentation • public relations copy • scripts • storyboards • team presentation • verbal presentation • video • visuals
<p><i>Characteristics</i> may include:</p>	<ul style="list-style-type: none"> • age • cultural and language background • educational background or general knowledge • gender • language, literacy and numeracy needs • physical ability • previous experience with the topic
<p><i>Presentation aids and materials</i> may include:</p>	<ul style="list-style-type: none"> • computer simulations and presentations • diagrams, charts and posters • models • overhead projector • paper-based materials • video and audio recordings • whiteboard

RANGE STATEMENT	
<i>Presentation techniques</i> may include:	<ul style="list-style-type: none"> • animation • comparative advertising • live action • music • signature elements such as: <ul style="list-style-type: none"> • slogans • logotypes • packaging • sound effects • use of a guest speaker • use of black and white • use of colour • use of humour
<i>Techniques to evaluate presentation effectiveness</i> may include:	<ul style="list-style-type: none"> • action research • critical friends • focus group interviews • one-on-one interviews with participants and other personnel involved in the presentation • written feedback provided by participants

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Communication - Interpersonal Communication
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Co-requisite units

Co-requisite units		

Co-requisite units		

BSBFIM501A Manage budgets and financial plans

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to undertake financial management within a work team in an organisation. This includes planning and implementing financial management approaches, supporting team members whose role involves aspects of financial operations, monitoring and controlling finances, and reviewing and evaluating effectiveness of financial management processes in line with the financial objectives of the work team and the organisation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit addresses the requirement for managers to ensure that financial resources are used effectively. This is done by ensuring access to budget/s and ongoing monitoring expenditure against the budget/s.</p> <p>The unit applies to managers working in small and large business environments and not for profit organisations.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan financial management approaches	1.1. Access <i>budget/financial plans</i> for the work team 1.2. Clarify budget/financial plans with <i>relevant personnel</i> within the organisation to ensure that documented outcomes are achievable, accurate and comprehensible 1.3. Negotiate any changes required to be made to budget/financial plans with relevant personnel within the organisation 1.4. Prepare <i>contingency plans</i> in the event that initial plans need to be varied
2. Implement financial management approaches	2.1. Disseminate relevant details of the agreed budget/financial plans to team members 2.2. Provide <i>support</i> to ensure that team members can competently perform <i>required roles</i> associated with the management of finances 2.3. Determine and access <i>resources and systems</i> to manage financial management processes within the work team
3. Monitor and control finances	3.1. Implement <i>processes</i> to monitor actual expenditure and to control costs across the work team 3.2. Monitor expenditure and costs on an agreed cyclical basis to identify cost variations and expenditure overruns 3.3. Implement, monitor and modify contingency plans as required to maintain financial objectives 3.4. <i>Report</i> on budget and expenditure in accordance with organisational protocols
4. Review and evaluate financial management processes	4.1. Collect and collate for analysis, <i>data and information on the effectiveness of financial management processes</i> within the work team 4.2. Analyse data and information on the effectiveness of financial management processes within the work team and identify, document and recommend any improvements to existing processes 4.3. Implement and monitor agreed improvements in line with financial objectives of the work team and the organisation

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- numeracy skills to read and understand a budget and to update a budget
- technology skills to use software associated with financial record keeping.

Required knowledge

- basic accounting principles
- organisational requirements related to financial management
- relevant legislation and current requirements of the Australian Taxation Office, including GST
- requirements for organisational record keeping and auditing
- principles and techniques involved in:
 - budgeting
 - cash flows
 - electronic spreadsheets
 - GST
 - ledgers and financial statements
 - profit and loss statements.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> financial skills required to work with and interpret budgets, ageing summaries, cash flow, petty cash, GST, and profit and loss statements knowledge of the record keeping requirements for the ATO and for auditing purposes.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> assessment of written reports indicating broad knowledge of managing budgets and managing financial resources in the organisation demonstration of techniques using financial record keeping software direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate oral or written questioning to assess knowledge of requirements for organisational record keeping and auditing review of contingency plans review of identification of cost variations and expenditure overruns evaluation of documentation reporting on budget and expenditure review of documentation identifying and recommending improvements to financial management processes.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p>

EVIDENCE GUIDE

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| | <ul style="list-style-type: none">• other units from the Diploma of Management. |
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Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Budget/financial plans</i> may include:</p>	<ul style="list-style-type: none"> • cash flow projections • long-term budgets/plans • operational plans • short-term budgets/plans • spreadsheet-based financial projections • targets or key performance indicators for production, productivity, wastage, sales, income and expenditure
<p><i>Relevant personnel</i> may include:</p>	<ul style="list-style-type: none"> • financial managers, accountants or financial controllers • supervisors, other frontline managers
<p><i>Contingency plans</i> may include:</p>	<ul style="list-style-type: none"> • contracting out or outsourcing human resources and other functions or tasks • diversification of outcomes • finding cheaper or lower quality raw materials and consumables • increasing sales or production • recycling and re-using • rental, hire purchase or alternative means of procurement of required materials, equipment and stock • restructuring of organisation to reduce labour costs • risk identification, assessment and management processes • seeking further funding • strategies for reducing costs, wastage, stock or consumables • succession planning
<p><i>Support</i> may include:</p>	<ul style="list-style-type: none"> • access to specialist advice • documentation of procedures • help desk or identified experts within the organisation • information briefings or sessions

RANGE STATEMENT	
	<ul style="list-style-type: none"> • intranet-based information • training including mentoring, coaching and shadowing
Required roles may include:	<ul style="list-style-type: none"> • arranging for use of corporate credit cards • banking • debt collection • ensuring security, accuracy and currency of financial operations • invoicing clients, customers and consumers • maintaining journals, ledgers and other record keeping systems • maintaining petty cash system • purchasing and procurement • wages and salaries payments and record keeping
Resources and systems may include:	<ul style="list-style-type: none"> • hardware and software • human, physical or financial resources • record keeping systems (electronic and paper-based) • specialist advice or support
Processes to monitor actual expenditure and to control costs across the work team include:	<ul style="list-style-type: none"> • reporting of: <ul style="list-style-type: none"> • assets • consumables • equipment • expenditure • income • stock • wastage
Reporting may include data from:	<ul style="list-style-type: none"> • bank statements • credit card statements • financial reports • invoices and receipts • ledgers and journals • logs • petty cash records • spreadsheet-based records
Data and information on the effectiveness of financial management processes may include records (paper-based and	<ul style="list-style-type: none"> • bank account records • cash flow data • contracts

RANGE STATEMENT

electronic) related to:

- credit card receipts
- employee timesheets
- files of paid purchase and service invoices
- income and expenditure
- insurance reports
- invoices
- job costings
- petty cash receipts
- quotations
- taxation records
- wages/salaries books

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units	

BSBFLM305C Support operational plan

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to provide support for operational practices and procedures within the organisation's productivity and profitability plans. This includes contributing to the operational plan, assisting in recruiting employees and acquiring resources, and monitoring and adjusting operational performance.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>Frontline managers are actively engaged in planning activities to achieve the measurable, stated objectives of the team and the organisation. This key role is carried out to provide safe, efficient and effective products and services to customer satisfaction within the organisation's productivity and profitability plans.</p> <p>At this level, work will normally be carried out within known routines, methods and procedures, and may also involve a number of complex or non routine activities that require some discretion and judgement.</p> <p>This unit is related to BSBMGT402A Implement operational plan.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to implementation of operational plan	1.1. Collect and record details of <i>resource requirements</i> and report to <i>relevant personnel</i> 1.2. Ensure the <i>operational plan</i> contributes to the achievement of the organisation's performance and business plan 1.3. Identify <i>key performance indicators</i> to measure own and work team's performance 1.4. Undertake <i>contingency planning</i> as required 1.5. Support the development and presentation of proposals for resource requirements as required
2. Assist in recruiting employees and acquiring resources	2.1. Assist with employee recruitment and/or induction as required, within <i>the organisation's policies, practices and procedures</i> 2.2. Acquire physical resources and services according to the organisation's policies, practices and procedures and in consultation with relevant personnel
3. Support operations	3.1. Identify and utilise <i>performance systems and processes</i> to assess team progress in achieving plans and targets 3.2. Compare actual productivity and performance with identified short-term budgets, targets and performance results 3.3. Identify and report unsatisfactory performance to relevant personnel, to enable action to be taken to rectify the situation 3.4. Provide coaching to support individuals and teams to use resources effectively, economically and safely 3.5. Support <i>consultation processes</i> for the development and/or variation of the operational plan as required 3.6. Present recommendations for variation to operational plans to relevant personnel 3.7. Follow performance <i>systems, procedures and recording processes</i> in accordance with organisation requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- coaching and mentoring skills to provide support to colleagues
- functional literacy skills to access and use workplace information
- skills to:
 - maintain a safe workplace and environment
 - access and use feedback to improve operational performance
 - prepare recommendations to improve operations
 - access and use established systems and processes.

Required knowledge

- principles and techniques of:
 - short-term operational scheduling
 - physical resources and services acquisition procedures and/or systems
 - budget and performance figures interpretation
 - performance monitoring within defined job role
 - performance reporting
 - problem identification and resolution
 - alternative approaches to improving resource usage and eliminating resource inefficiencies and waste within defined job role
- relevant legislation from all levels of government that may affect business operations, especially in regard to occupational health and safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- support for individuals and teams who have difficulty in performing to the required standard.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • sharing information with members of the work team about implementing and monitoring the operational plan • assisting in planning resource acquisition and usage including human resources, risk management and contingency planning • monitoring, analysing and reporting individual and team performance against identified targets.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • records produced while working with the operational plan, such as: <ul style="list-style-type: none"> • suggestions for variations to the operational plan • rosters and staff allocation • short-term resource acquisition planning, contingency planning and/or risk management plans • induction programs conducted • suggestions and input into management decisions related to the operational plan • records of actions taken to address day-to-day resource shortfalls.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p>

EVIDENCE GUIDE

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| | <ul style="list-style-type: none">• BSBFLM303C Contribute to effective workplace relationships• BSBFLM306C Provide workplace information and resourcing plans• BSBFLM312C Contribute to team effectiveness• BSBCMN311B Maintain workplace safety. |
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Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Resource requirements may include:</p>	<ul style="list-style-type: none"> • purchasing or ordering of goods • stock requirements and requisitions • supply of resources.
<p>Relevant personnel may include:</p>	<ul style="list-style-type: none"> • colleagues, supervisors and managers • OHS committees and other people with specialist responsibilities • specialist resource managers • unions/employee groups • other employees.
<p>Operational plan may include:</p>	<ul style="list-style-type: none"> • organisational plans • tactical plans developed by the department or section to detail product and service performance.
<p>Key performance indicators may refer to:</p>	<ul style="list-style-type: none"> • measures for monitoring or evaluating the efficiency or effectiveness of a system, and which may be used to demonstrate accountability and identify areas for improvements.
<p>Contingency planning may refer to:</p>	<ul style="list-style-type: none"> • contracting or outsourcing human resource and other functions or tasks • diversification of outcomes • finding cheaper or lower quality raw materials and consumables • increasing sales or production • recycling and re-use • rental, hire purchase or alternative means of procurement of required materials, equipment and stock • restructuring of organisation to reduce labour costs • risk identification, assessment and management processes • seeking further funding • strategies for reducing costs, wastage, stock or

RANGE STATEMENT	
	<ul style="list-style-type: none"> • consumables • succession planning.
<i>The organisation's policies practices and procedures</i> may include:	<ul style="list-style-type: none"> • organisational guidelines which govern and prescribe operational functions, such as the acquisition and management of human and physical resources • organisational culture • Standard Operating Procedures • undocumented practices in line with organisational operations.
<i>Performance systems and processes</i> may be:	<ul style="list-style-type: none"> • formal or informal processes within the organisation, such as: <ul style="list-style-type: none"> • Key Performance Indicators (KPIs) • specified work outcomes • individual and team work plans • feedback arrangements • informal systems used in the place of existing organisation-wide systems.
<i>Consultation processes</i> may refer to:	<ul style="list-style-type: none"> • mechanisms used to provide feedback to the work team in relation to outcomes of consultation • meetings, interviews, brainstorming sessions, email/intranet communications, newsletters or other processes and devices which ensure that all employees have the opportunity to contribute to team and individual operational plans.
<i>Performance systems, procedures and recording processes</i> may include:	<ul style="list-style-type: none"> • databases and other recording mechanisms • individual and team performance plans • organisational policies and procedures relative to performance.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Frontline Management
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Co-requisite units

Co-requisite units		

BSBFLM309C Support continuous improvement systems and processes

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit specifies the outcomes required to support the organisation's continuous improvement systems and processes. Particular emphasis is on actively encouraging the team to participate in the process, on monitoring and reporting on specified outcomes and on supporting opportunities for further improvements. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.
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Application of the Unit

Application of the unit	<p>This unit replaces BSBFLM309A Support continuous improvement systems and processes.</p> <p>Frontline managers have an active role in supporting continuous improvement processes in achieving the organisation's objectives. Their position, closely associated with the creation and delivery of products and services, means that they have an important responsibility in influencing the ongoing development of the organisation.</p> <p>At this level, work will normally be carried out within known routines, methods and procedures, and may also involve a number of complex or non-routine activities that require some discretion and judgement.</p> <p>Consider co-assessment with BSBFLM305C Support operational plan, BSBFLM312C Contribute to team effectiveness, BSBCUS301A Deliver and monitor a service to customers, BSBCMN311B Maintain workplace safety, and BSBFLM311C Support a workplace learning environment.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to continuous improvement systems and processes	<p>1.1. Actively encourage and support team members to participate in decision making processes and to assume responsibility and exercise initiative</p> <p>1.2. <i>Communicate</i> the organisation's <i>continuous improvement processes</i> to individuals and teams</p> <p>1.3. Effectively utilise <i>mentoring and coaching</i> to ensure that individuals/teams are able to support the organisation's continuous improvement processes</p>
2. Monitor and report on specified outcomes	<p>2.1. Utilise the organisation's <i>systems</i> and <i>technology</i> to monitor team progress and to identify ways in which planning and operations could be improved</p> <p>2.2. Apply continuous improvement techniques and processes to improve <i>customer service</i></p>
3. Support opportunities for further improvement	<p>3.1. Communicate <i>agreed recommendations</i> for improvements in achieving the business plan to team members</p> <p>3.2. Document and use work performance to identify opportunities for further improvement</p> <p>3.3. Maintain records, reports and recommendations for improvement within the organisation's systems and processes</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- functional literacy skills to access and use workplace information
- research, analysis, interpretation and reporting skills
- monitoring and evaluation skills
- communication skills to:
 - gain the commitment of individuals and teams to continuous improvement
 - deal with people openly and fairly
 - use consultation skills effectively
- skills to consolidate opportunities for improvement
- coaching and mentoring skills to provide support to colleagues

Required knowledge

- legislation from all levels of government that affects business operation, especially in regard to occupational health and safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- principles and techniques of:
 - continuous improvement systems and processes
 - benchmarking
 - best practice
- benefits of continuous improvement
- quality approaches which the organisation may implement
- methods that can be used in continuous improvement
- barriers to continuous improvement
- recording, reporting and recommendation processes to facilitate continuous improvement applied within the organisation

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • examples of actions taken by the candidate to support continuous improvement including: • use of work performance to identify improvement • adjusted plans to reflect changes • effective communication to all stakeholders • use of technology to monitor operational progress • application of suitable recordkeeping processes.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access by the learner and trainer to appropriate documentation and resources normally used in the workplace • that this unit is assessed in the workplace or in a closely simulated work environment.
Method of assessment	<p>A range of assessment methods should be used to assess skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • Direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • Review of records supporting the organisation's continuous improvement systems and processes, such as: <ul style="list-style-type: none"> • contributions to organisational policies and procedures • contributions to procedures and policies for dealing with continuous improvement processes, and related codes of conduct • actions taken to address information collection, retrieval and use in the workplace • actions taken to address issues and problems within work team • actions taken to address methods of reporting

EVIDENCE GUIDE	
	<p>information</p> <ul style="list-style-type: none"> • learning and development plans for team members • materials developed for coaching, mentoring and training • induction programs developed and/or delivered • actions taken to address internal and external information management issues • reviews of people management • advice and input into management decisions related to continuous improvement • records of people management lessons learned.
Guidance information for assessment	<p>This unit should be assessed with other frontline management units taken as part of this qualification, as applicable to the candidate's leadership role in a work team, and as part of a holistic assessment activity.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Legislation, codes and national standards relevant to the workplace may include:	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety (OHS) and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice.
<i>OHS considerations</i> may include:	<ul style="list-style-type: none"> • provision of information about OHS legislative requirements and guidelines, and the organisation's OHS policies, procedures and programs • participation in the regular update of OHS systems and procedures • implementation of the continuous improvement processes of the OHS management system • changes to work practices, procedures and the working environment which impact on OHS • organisation's responsibilities to customers and suppliers.
Methods used to <i>communicate</i> with individuals and team may include:	<ul style="list-style-type: none"> • verbal, written or electronic communications • on-the-job mentoring and coaching.
<i>Continuous improvement processes</i> may include:	<ul style="list-style-type: none"> • policies and procedures which allow an organisation to systematically review and improve the quality of its products, services and procedures • cyclical audits and reviews of workplace, team and individual performance • seeking and considering feedback from a range of stakeholders • modifications and improvements to systems,

RANGE STATEMENT	
	<ul style="list-style-type: none"> processes, services and products evaluations and monitoring of effectiveness.
<i>Mentoring and coaching</i> may refer to:	<ul style="list-style-type: none"> teaching another member of the team, usually focusing on a specific work task or skill providing feedback, support and encouragement on a range of matters providing assistance with problem solving.
<i>Systems</i> may include:	<ul style="list-style-type: none"> organisation policies and procedures web based communication devices attendance at forums, meetings newsletters and reports.
<i>Technology</i> may include:	<ul style="list-style-type: none"> computerised systems and software such as databases, project management and word-processing telecommunications devices any other technology used to carry out work roles and responsibilities.
<i>Customer service</i> may be:	<ul style="list-style-type: none"> internal or external, to existing or new clients identifying needs and priorities in delivering a service to customers understanding of different levels of customer satisfaction.
<i>Agreed recommendations</i> may be:	<ul style="list-style-type: none"> identified improvements arising from the continuous improvement process determined in accordance with organisational policies and procedures

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and leadership - Frontline Management
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Co-requisite units

Co-requisite units		

BSBFLM311C Support a workplace learning environment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to effectively encourage and support a learning environment. Particular emphasis is on participation in processes to facilitate and promote learning and to monitor and improve learning performance.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>Frontline managers have a prominent role in encouraging and supporting the development of a learning environment in which work and learning come together.</p> <p>At this level, work will normally be carried out within known routines, methods and procedures, and may also involve a number of complex or non-routine activities that require some discretion and judgement.</p> <p>This unit is related to BSBLED401A Develop teams and individuals.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Encourage a learning environment	1.1. Encourage and support workplace <i>learning opportunities</i> 1.2. Implement <i>learning plans</i> as an integral part of individual and team performance plans 1.3. Implement learning plans to reflect <i>diversity of needs</i> and learning opportunities 1.4. Encourage individual and team access to, and participation in, learning opportunities 1.5. Liaise effectively with <i>training and development specialists</i> to contribute to learning opportunities which enhance individual, team and organisational performance
2. Encourage and promote learning of team and individuals	2.1. <i>Promote a learning culture</i> within the team and organisation 2.2. Support <i>coaching and mentoring</i> for the development of workplace knowledge, skills and attitudes 2.3. Encourage team members to assess own competencies, and to identify own <i>learning and development needs</i> 2.4. Share the benefits of learning with others in the team and organisation 2.5. Provide recognition and feedback for <i>workplace achievement</i> in a timely and appropriate manner
3. Identify opportunities for improvement	3.1. Monitor the performance of individuals and teams to determine the type and extent of required work-based support 3.2. Gather feedback from individuals and teams to identify opportunities for improving future learning arrangements 3.3. Negotiate adjustments with training and development specialists to improve the efficiency and effectiveness of learning 3.4. Record, document and report learning outcomes in accordance with the organisation's systems and procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- coaching and mentoring skills to support learning
- communication skills to:
 - gain the trust and confidence of colleagues
 - deal with people openly and fairly
 - use consultation skills effectively
- culturally appropriate communication skills to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- functional literacy skills to access and use workplace information
- skills in facilitating learning, including:
 - identifying learning needs
 - developing learning plans
 - selecting and using work activities to create learning opportunities
 - establishing a workplace conducive to learning
 - negotiating learning arrangements with training and development specialists
 - encouraging colleagues to share their knowledge and skills
 - evaluating the effectiveness of learning

Required knowledge

- principles and techniques of:
 - adult learning
 - a learning environment and learning culture
 - work based learning
 - structuring learning
 - coaching and mentoring
- relevant legislation from all levels of government that may affect business operation, especially in regard to:
 - occupational health and safety
 - environmental issues
 - equal opportunity and anti-discrimination
 - industrial relations

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> liaising with stakeholders, especially members of the work team, to develop, promote and maintain a workplace learning environment developing learning plans and arranging learning opportunities in line with identified needs compiling and interpreting data about learning arrangements and outcomes in accordance with organisational requirements.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate oral or written questioning to assess knowledge and understanding of workplace learning principles and organisational procedures and policies for applying learning systems presentation of examples of actions taken by the candidate to support a workplace learning environment review of materials developed for coaching, mentoring and training.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> BSBCUS301A Deliver and monitor a service to customers BSBFLM305C Support operational plan BSBFLM312C Contribute to team effectiveness

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• BSBCMN311B Maintain workplace safety• BSBWOR301A Organise personal work priorities and development.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Learning opportunities</i> may include:</p>	<ul style="list-style-type: none"> • action learning • coaching • exchange/rotation • induction • mentoring • shadowing • short courses • structured learning activities conducted outside and within the workplace such as: <ul style="list-style-type: none"> • accredited training through an independent organisation such as a State OHS authority • training through an RTO leading to a nationally recognised Australian Qualifications Framework (AQF) qualification or Statement of Attainment, for example through a traineeship or Australian Apprenticeship • workplace learning activities, that may also contribute to a recognised credential, such as: <ul style="list-style-type: none"> • workshops.
<p><i>Learning plans</i> may include:</p>	<ul style="list-style-type: none"> • codes of conduct • key performance indicators (KPI) • negotiated agreement with individual • OHS requirements • performance standards • team competencies • team roles and responsibilities • work outputs and process.
<p><i>Diversity of needs</i> may include:</p>	<ul style="list-style-type: none"> • different learning needs that relate to social, cultural and other types of workplace diversity, such as the need for varied communication styles and approaches.
<p><i>Training and development</i></p>	<ul style="list-style-type: none"> • internal or external.

RANGE STATEMENT	
<i>specialists</i> may be:	
<i>Promoting a learning culture</i> may include:	<ul style="list-style-type: none"> • encouraging learning and sharing of skills and knowledge across the work team and the wider organisation in order to develop competencies of team members and the team • informally supporting and recognising learning achievements and sharing success stories • promoting participation and learning opportunities • using formal processes to reward training participation in line with organisational processes • utilising workplace activities as opportunities for learning.
<i>Coaching and mentoring</i> may refer to:	<ul style="list-style-type: none"> • providing assistance with problem solving • providing feedback, support and encouragement on a range of matters • teaching another member of the team, usually focusing on a specific work task or skill.
<i>Learning and development needs</i> may include:	<ul style="list-style-type: none"> • developmental learning, for example the learning required to progress through an organisation and take on new tasks and roles • gaps between the competencies held by the employee and the skills and knowledge required to effectively undertake workplace tasks.
<i>Workplace achievement</i> may refer to:	<ul style="list-style-type: none"> • achievements of set goals and performance outcomes by the work team and/or individuals.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Frontline Management
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Co-requisite units

Co-requisite units		

BSBFLM312C Contribute to team effectiveness

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This specifies the outcomes required to by frontline managers to contribute to the effectiveness of the work team. It involves planning with the team to meet expected outcomes, developing team cohesion, participating in and facilitating the work team, and communicating with the management of the organisation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>Frontline managers have a key role in developing efficient and effective work teams within the context of the organisation. They play a prominent part in motivating, mentoring, coaching and developing team cohesion by providing leadership for the team and forming the bridge between the management of the organisation and the team members.</p> <p>At this level, work will normally be carried out within known routines, methods and procedures, and may also involve a number of complex or non routine activities that require some discretion and judgement.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to team outcomes	1.1. Consult team members to identify team purpose, roles, responsibilities, goals, plans and objectives 1.2. Support team members to meet expected outcomes
2. Support team cohesion	2.1. Encourage team members to participate in the planning, decision making and operational aspects of the work team to their level of responsibility 2.2. Encourage team members to take responsibility for their own work and to assist each other in undertaking required roles and responsibilities 2.3. Provide feedback to team members to encourage, value and reward team members' efforts and contributions 2.4. Identify and address issues, concerns and problems identified by team members to relevant persons as required
3. Participate in work team	3.1. Actively encourage and support team members to participate in team activities and communication processes and to take responsibility for their actions 3.2. Support the team to identify and resolve problems which impede its performance 3.3. Utilise own contribution to work team to serve as a role model for others and enhance the organisation's image within the work team, the organisation and with clients/customers
4. Communicate with management	4.1. Maintain open communication with line manager/management at all times 4.2. Communicate information from line manager/management to the team 4.3. Communicate unresolved issues to line manager/management and follow-up to ensure action is taken in response to these matters

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills

- ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities
- communication skills, including listening
- basic training skills, including mentoring and coaching
- planning and organising skills
- problem solving skills
- attributes:
 - empathic
 - communicative
 - self aware
 - supportive
 - trusting
 - open
 - flexible
 - accommodating
 - initiating
 - loyal
 - fair
 - adaptable

Required knowledge

Required knowledge

- relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- organisational policies and procedures
- organisational goals, objectives and plans at both tactical and strategic levels
- organisational structure including organisational chart
- learning and development options available within and through organisation
- a general understanding of the principles and techniques of:
 - group dynamics and processes
 - motivation
 - planning

REQUIRED SKILLS AND KNOWLEDGE

- | |
|---|
| <ul style="list-style-type: none">• negotiation• individual behaviour and difference |
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Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • demonstrate leadership in contributing to team plans • lead and facilitate teamwork • actively communicate with management • manage communication within the team • induct new team members • implement performance management system • handle problems
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • that this unit can be assessed in the workplace or in a closely simulated work environment • access by the learner and trainer to appropriate documentation and resources normally used in the workplace • where assessment is part of a learning experience, evidence will need to be collected over a period of time, involving both formative and summative assessment • that examples of actions taken by candidate to contribute to team effectiveness are provided
Method of assessment	<p>A range of assessment methods should be used to assess skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • Direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • Records produced from working in a team, such as: <ul style="list-style-type: none"> • reports • minutes or records of meetings • work journals or diaries • learning and development plans developed with team members • records of actions taken to address issues raised

EVIDENCE GUIDE	
	by team members
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Legislation, codes and national standards relevant to the workplace may include:</p>	<ul style="list-style-type: none"> • award and enterprise agreements and relevant industrial instruments • relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety (OHS) and environmental issues, equal opportunity, industrial relations and anti-discrimination • relevant industry codes of practice
<p>OHS considerations may include:</p>	<ul style="list-style-type: none"> • provision of information about OHS legislative requirements, guidelines and the organisation's OHS policies, procedures and programs • training of all employees in health and safety procedures • participation in the regular update of OHS systems and procedures • changes to work practices, procedures and the working environment which impact on OHS
<p><i>Team purpose, roles, responsibilities, goals, plans and objectives</i> may include:</p>	<ul style="list-style-type: none"> • goals for individuals and the work team • expected outcomes and outputs • individual and team performance plans and Key Performance Indicators (KPIs) • action plans, business plans and operational plans linked to strategic plans • OHS responsibilities
<p><i>Feedback</i> may refer to:</p>	<ul style="list-style-type: none"> • communication of ideas and thoughts which focus on specific tasks, outcomes, decisions, issues or behaviours • formal/informal gatherings between team members where there is discussion on work-related matters
<p><i>Relevant persons</i> may include:</p>	<ul style="list-style-type: none"> • frontline manager's direct superior or other management representatives

RANGE STATEMENT	
	<ul style="list-style-type: none"> • colleagues • designated personnel e.g. safety officer
<i>Responsibility for their actions</i> may involve:	<ul style="list-style-type: none"> • individuals and teams • individual and joint actions
<i>Communication</i> may include:	<ul style="list-style-type: none"> • verbal, written or electronic communication • face-to-face • formal/informal interaction
<i>Line manager/management</i> may refer to:	<ul style="list-style-type: none"> • frontline manager's direct superior or other management representatives
<i>Unresolved issues</i> may include:	<ul style="list-style-type: none"> • issues, concerns and tensions • problems related to work roles and responsibilities • grievances and complaints • any matters affecting workplace relationships and team cohesion

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Frontline Management services
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Co-requisite units

Co-requisite units	

BSBLED501A Develop a workplace learning environment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to encourage and support the development of a learning environment in which work and learning come together. Particular emphasis is on the development of strategies to facilitate and promote learning, and to monitor and improve learning performance.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to managers. All managers have a prominent role in encouraging, supporting and facilitating the development of a learning environment in which work and learning come together.</p> <p>At this level work will normally be carried out within complex and diverse methods and procedures, which require the exercise of considerable discretion and judgement, using a range of problem solving and decision making strategies.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Create learning opportunities	<p>1.1. Identify potential formal and informal learning opportunities</p> <p>1.2. Identify learning needs of individuals in relation to the needs of the team and/or enterprise, and available learning opportunities</p> <p>1.3. Develop and implement learning plans as an integral part of individual and team performance plans</p> <p>1.4. Develop strategies to ensure that learning plans reflect the diversity of needs</p> <p>1.5. Ensure organisational procedures maximise individual and team access to, and participation in, learning opportunities</p> <p>1.6. Ensure effective liaison occurs with training and development specialists and contributes to learning opportunities which enhance individual, team and organisational performance</p>
2. Facilitate and promote learning	<p>2.1. Develop strategies to ensure that workplace learning opportunities are used and that team members are encouraged to share their skills and knowledge to encourage a learning culture within the team</p> <p>2.2. Implement organisational procedures to ensure workplace learning opportunities contribute to the development of appropriate workplace knowledge, skills and attitudes</p> <p>2.3. Implement policies and procedures to encourage team members to assess their own competencies, and to identify their own learning and development needs</p> <p>2.4. Share the benefits of learning with others in the team and organisation</p> <p>2.5. Recognise workplace achievement by timely and appropriate recognition, feedback and rewards</p>
3. Monitor and improve learning effectiveness	<p>3.1. Use strategies to ensure that team and individual learning performance is monitored to determine the type and extent of any additional work-based support required, and any occupational health and safety (OHS) issues</p> <p>3.2. Use feedback from individuals and teams to identify and introduce improvements in future learning arrangements</p> <p>3.3. Make adjustments, negotiated with training and</p>

ELEMENT	PERFORMANCE CRITERIA
	development specialists, for improvements to the efficiency and effectiveness of learning 3.4. Use processes to ensure that records and reports of competency are documented and maintained within the organisation's systems and procedures to inform future planning

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - deal with people openly and fairly
 - encourage colleagues to share their knowledge and skills
 - gain the trust and confidence of colleagues
 - use consultation skills effectively
- literacy skills to access and use workplace information
- planning and organisational skills to facilitate, promote and monitor learning by:
 - developing learning plans
 - establishing a workplace which is conducive to learning
 - evaluating the effectiveness of learning
 - identifying learning needs
 - negotiating learning arrangements with training and development specialists
 - selecting and using work activities to create learning opportunities
 - using coaching and mentoring to support learning.

Required knowledge

- management of relationships to achieve a learning environment
- principles and techniques involved in the management and organisation of:
 - adult learning
 - coaching and mentoring
 - consultation and communication
 - improvement strategies
 - leadership
 - learning environment and learning culture
 - monitoring and reviewing workplace learning
 - problem identification and resolution
 - record keeping and management methods
 - structured learning
 - work-based learning.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • methods for reviewing performance development needs and techniques for providing feedback on those needs • models for planning professional development • options available for professional development • knowledge of relationship management required to achieve a learning environment.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • assessment of written reports • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of performance in role plays • observation of presentations • oral or written questioning to assess knowledge of the principles and techniques involved in the management and organisation of adult learning • review of the development and implementation of learning plans • evaluation of how workplace achievement is recognised • review of processes used to record and report competency.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p>

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• other units from the Diploma of Management.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Learning opportunities</i> may include:</p>	<ul style="list-style-type: none"> • structured learning activities conducted outside and within the workplace such as: <ul style="list-style-type: none"> • accredited training through an independent organisation such as a state/territory OHS authority • action learning • short courses • training through a Registered Training Organisation (RTO) leading to a nationally recognised Australian Qualifications Framework (AQF) qualification or Statement of Attainment • workshops • workplace learning activities, that may also contribute to a recognised credential, such as: <ul style="list-style-type: none"> • coaching • exchange/rotation • induction • mentoring • shadowing
<p><i>Learning needs</i> may include:</p>	<ul style="list-style-type: none"> • developmental learning, for example the learning required to progress through an organisation and take on new tasks and roles • gaps between the competencies held by the employee, and the skills and knowledge required to effectively undertake workplace tasks
<p><i>Learning plans</i> may include:</p>	<ul style="list-style-type: none"> • codes of conduct • key performance indicators • negotiated agreement with individual/s • OHS requirements • performance standards • team competencies

RANGE STATEMENT	
	<ul style="list-style-type: none"> team roles and responsibilities work outputs and processes
<i>Diversity of needs</i> may include:	<ul style="list-style-type: none"> learning needs that relate to social, cultural and other types of workplace diversity, such as the need for varied communication styles and approaches
<i>Training and development specialists</i> may be:	<ul style="list-style-type: none"> internal external
<i>Encourage a learning culture</i> may refer to:	<ul style="list-style-type: none"> encouraging learning and sharing skills and knowledge across the work team and the wider organisation to develop competencies of individual team members and the team as a whole

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units	

BSBMGT502B Manage people performance

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to manage the performance of staff who report to them directly. Development of key result areas and key performance indicators and standards, coupled with regular and timely coaching and feedback, provide the basis for performance management.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to all managers and team leaders who manage people. It covers work allocation and the methods to review performance, reward excellence and provide feedback where there is a need for improvement.</p> <p>The unit makes the link between performance management and performance development, and reinforces both functions as a key requirement for effective managers.</p> <p>This is a unit that all managers/prospective managers who have responsibility for other employees should strongly consider undertaking.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Allocate work	1.1. Consult relevant groups and individuals on work to be allocated and resources available 1.2. Develop work plans in accordance with operational plans 1.3. Allocate work in a way that is efficient, cost effective and outcome focussed 1.4. Confirm <i>performance standards, Code of Conduct</i> and work outputs with relevant teams and individuals 1.5. Develop and agree <i>performance indicators</i> with relevant staff prior to commencement of work 1.6. Conduct <i>risk analysis</i> in accordance with the organisational risk management plan and legal requirements
2. Assess performance	2.1. Design <i>performance management</i> and review processes to ensure consistency with organisational objectives and policies 2.2. Train participants in the performance management and review process 2.3. Conduct performance management in accordance with organisational protocols and time lines 2.4. Monitor and evaluate performance on a continuous basis
3. Provide feedback	3.1. Provide informal feedback to staff on a regular basis 3.2. Advise relevant people where there is poor performance and take necessary actions 3.3. Provide on-the-job coaching when necessary to improve performance and to confirm <i>excellence in performance</i> 3.4. Document performance in accordance with the organisational performance management system 3.5. Conduct formal structured feedback sessions as necessary and in accordance with organisational policy
4. Manage follow up	4.1. Write and agree performance improvement and development plans in accordance with organisational policies 4.2. Seek assistance from human resources specialists where appropriate 4.3. Reinforce excellence in performance through recognition and continuous feedback

ELEMENT	PERFORMANCE CRITERIA
	4.4. Monitor and coach individuals with poor performance 4.5. Provide support services where necessary 4.6. Counsel individuals who continue to perform below expectations and implement the disciplinary process if necessary 4.7. <i>Terminate</i> staff in accordance with legal and organisational requirements where serious misconduct occurs or ongoing poor-performance continues

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to articulate expected standards of performance, to provide effective feedback and to coach staff who need development
- risk management skills to analyse, identify and develop mitigation strategies for identified risks
- planning and organisation skills to ensure a planned and objective approach to the performance management system.

Required knowledge

- relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- relevant awards and certified agreements
- performance measurement systems utilised within the organisation
- unlawful dismissal rules and due process
- staff development options and information.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • documented performance indicators and a critical description and analysis of performance management system from the workplace • techniques in providing feedback and coaching for improvement in performance • knowledge of relevant awards and certified agreements.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • assessment of written reports • demonstration of techniques in providing feedback and coaching • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of work plans, performance indicators, risk analysis, performance management and review processes, performance improvement and development plans.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other management units.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<i>Performance standards</i> mean:	<ul style="list-style-type: none"> level of performance sought from an individual or group which may be expressed either quantitatively or qualitatively
<i>Code of Conduct</i> means:	<ul style="list-style-type: none"> agreed (or decreed) set of rules relating to employee behaviour/conduct with other employees or an agreed (or decreed) set of rules relating to employee behaviour/conduct with other employees or customers
<i>Performance indicators</i> mean:	<ul style="list-style-type: none"> measures against which performance outcomes are gauged
<i>Risk analysis</i> means:	<ul style="list-style-type: none"> determination of the likelihood of a negative event preventing the organisation meeting its objectives and the likely consequences of such an event on organisational performance
<i>Performance management</i> means:	<ul style="list-style-type: none"> in accordance with relevant industrial agreements process or set of processes for establishing a shared understanding of what an individual or group is to achieve, and managing and developing individuals in a way which increases the probability it will be achieved in both the short- and long-term
<i>Excellence in performance</i> means:	<ul style="list-style-type: none"> regularly and consistently exceeding the performance targets established while meeting the organisation's performance standards
<i>Termination</i> means:	<ul style="list-style-type: none"> cessation of the contract of employment between an employer and an employee, at the initiative of the employer within relevant industrial agreements

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units		

BSBMGT507A Manage environmental performance

Modification History

Not applicable.

Unit Descriptor

This unit covers the development, maintenance and evaluation of the organisation's environmental policies and procedures in regard to environmental sustainability as an integral part of business planning.

All those who have a management responsibility would be advised to take this unit. It is also very useful for small businesses.

This unit is related to BSBMGT505A Ensure a safe workplace, BSBMGT609A Manage risk and BSBMGT610A Manage environmental management systems.

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Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Develop a business plan to enhance environmental performance	<p>1.1 A business plan is developed that reflects the organisation's policies and commitment to environmental sustainability as an integral part of business operations</p> <p>1.2 Procedures are developed to maximise/enhance integration of environment, finance, safety and other areas of impacts and opportunities</p> <p>1.3 Procedures are developed to maximise environmental opportunities and minimise environmental impacts, and expert advice is obtained as required</p> <p>1.4 Continuous improvement policies and practices monitor and report on the environmental performance of the organisation</p> <p>1.5 The organisation's activities and products are designed to minimize life cycle impacts</p> <p>1.6 Financial and human resources for the operation of environmental systems are identified, sought and/or provided as required</p> <p>1.7 Changing trends and opportunities relevant to the organisation are identified, analysed and taken into account at the planning stage</p>
2 Manage environmental impact and opportunity	<p>2.1 Identification and assessment of existing and potential environmental impacts and opportunities is conducted and advice is sought as required</p> <p>2.2 Procedures for ongoing management of environmental impacts and opportunities are developed and integrated with the organisation's policies and procedures</p> <p>2.3 Environmental procedures are addressed at the planning, design and evaluation stages of any change in the workplace to ensure that ongoing impacts and opportunities are identified</p>

- | | | |
|---|--|---|
| | 2.4 | Contingency plans are established to manage impacts and opportunities when long-term solutions are not readily available |
| | 2.5 | Ongoing training program is developed to identify and fulfil employees' environmental training needs |
| 3 | Promote innovation and opportunity | 3.1 Continuous improvement and sustainable innovation are promoted as an essential part of doing business |
| | 3.2 | Procedures are developed to analyse and communicate the costs and benefits of innovations and improvements |
| | 3.3 | New ideas are actively sought and entrepreneurial behaviour is encouraged in employees, workplace committees and teams |
| | 3.4 | Procedures are established to actively seek the support of the supply chain for implementing sustainable innovation and continuous improvement |
| | 3.5 | Members of the supply chain are encouraged to meet high standards of environmental performance |
| 4 | Manage system to record and report environmental impacts and opportunities | 4.1 System is managed to record and report environmental performance as an integral part of the organisation's record keeping and performance evaluation system |
| | 4.2 | Patterns of environmental non-compliance are identified and addressed and opportunities for environmental management improvements are acted upon |
| 5 | Evaluate environmental performance | 5.1 Processes are developed to ensure that ongoing evaluation of environmental performance, is part of the organisation's procedures |

Required Skills and Knowledge

Not applicable.

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competency for this unit. This is an integral part of the assessment of competency and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

Evidence will need to be provided of the ability to identify, plan, manage and promote environmental sustainability within the organisation and to contribute to the development of environmental management policies that minimise impacts and maximise opportunities within the organisation

N.B. Particular note must be taken that evidence must be strictly relevant to the particular management role and is not intended to include detailed technical aspects of environmental science

Underpinning Knowledge*

* At this level the learner must demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas.

Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination

Required knowledge is to be limited to that which is sufficient to perform the particular management function and is intended to promote environmental awareness rather than technical environment competencies

Relevant business planning concepts

Environment sustainability as a "whole-system" approach

Quality assurance procedures

Strategies to maximise opportunities and minimise environment impact

Relevant training and record keeping concepts

Relevant knowledge of environmental issues especially in regard to water catchments, air, noise, ecosystems, habitat, waste minimisation

Relevant knowledge of ecological systems in regard to business operation

Underpinning Skills

Communication/consultation skills to ensure all relevant groups and individuals are advised of what is occurring and are provided with an opportunity for input

Conflict management skills to mediate, negotiate and/or attempt to obtain consensus between parties

Analysis skills to identify potential environmental and ecological impacts and opportunities in regard to business operation

Problem solving skills to deal effectively with environmental impacts and opportunities as identified

Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement

Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package

Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment

Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels

Collecting, analysing and organising information (Level 3) - to aid planning

Communicating ideas and information (Level 3) - to promote environmental policies

Planning and organising activities (Level 3) - to develop environmental management strategies

Working with teams and others (Level 3) - to control impacts, maximise opportunities and to gain support for management strategies

Using mathematical ideas and techniques (Level 3) - to aid planning

Solving problems (Level 3) - to develop management strategies and operational procedures

Using technology (Level 3) - to access and record information

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

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Relevant knowledge of ecological systems in regard to business operation

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Communication/consultation skills to ensure all relevant groups and individuals are advised of what is occurring and are provided with an opportunity for input

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Using technology (Level 3) - to access and record information

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:

award and enterprise agreements and relevant industrial instruments

relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination

relevant industry codes of practice

Knowledge of legislation, codes, national standards, industry codes of practice and workplace policies and procedures must:

be strictly relevant to the particular workplace and is not intended to include detailed technical aspects of environmental science and

details of legislation must be directly relevant to the workplace

be consistent with the concept that people at this level, will be dealing with environmental concepts as part of an overall management responsibility and not as an environmental specialist

Environmental performance may be defined as:

a measure of an organisation's impact on the environment and of their ability to manage that impact

Environmental policies must be

relevant to organisation's operations and must be appropriate to the scope and scale of the business

Environmental policies may address:

local, national and international innovations, programs and ideas

triple bottom line principles i.e. the integration of environmental, commercial and social aspects of business operations

concepts of business sustainability

environmental load reduction and waste minimisation

tenders for the provision of goods and services that specify environmentally preferred selection criteria (eg. use of paper packaging rather than plastic)

protection of land and habitat and ecological considerations

procedures for media releases as a result of incidents

Environmental improvement plans may be established at management level and may include:

measuring, monitoring and recording environmental performance, and continually setting targets for measurable improvements

all aspects of environmental performance including energy and other resource use, waste minimisation, recycling, transport use etc

Environmental sustainability must be relevant to the organisation's operations and may include:

recognition of natural earth systems and how natural systems work

Environmental sustainability may be affected by:

organisational culture and operations

internal or external economic climate

political climate

market focus/considerations

Business sustainability means:

A sustainable business in this sense is profitable and competitive in the foreseeable future. Effective management of environmental impacts and opportunities can contribute to business sustainability by reducing costs, differentiating goods and services and contributing to a better corporate image.

"Maximise opportunities to improve environmental performance" can provide opportunities to improve business operations including increases in:

corporate image/citizenship

staff morale

cost reduction

product differentiation/branding

identification of market potential

To "minimise environmental impact", means to minimise the organisations negative effects on the environment including:

waste minimisation and recycling

emissions/spills

resource efficiency including water, energy

alternative energy sources

reduction in use of non-renewable resources

Expert assistance and/or advice may be sought from:

internal or external sources/specialists

consultants or other experts or specialists

Monitor and report in this context means to maximise and continually seek to improve business performance by developing procedures which monitor and report on:

variances

deficiencies

improvements

trends

Products may include:

goods, including packaging

services

Life cycle impacts may include:

tendering and purchasing processes to include life cycle criteria

product design and manufacture

packaging policies

product use

product disposal

vehicle policies that include use of cleaner fuels/alternative energy sources and regular

servicing intervals to reduce pollution and improve efficiency

Environmental procedures may include:

procedures that may have an influence on the organisation's environmental performance

Environmental management training program should be:

integrated into the organisation's existing training arrangements

Continuous improvement and innovation means:

consistently reviewing activities in search of a better way and improving the organisation in all aspects of its operation

Supply chain may include:

suppliers

contractors

others acting on organisation's behalf

supply should be identified as a key determinate of environmental performance

Recording and reporting systems may include:

internal and external reporting requirements

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relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity,

industrial relations and anti-discrimination

relevant industry codes of practice

Knowledge of legislation, codes, national standards, industry codes of practice and workplace policies and procedures must:

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Continuous improvement and innovation means:

consistently reviewing activities in search of a better way and improving the organisation in

all aspects of its operation

Supply chain may include:

suppliers

contractors

others acting on organisation's behalf

supply should be identified as a key determinate of environmental performance

Recording and reporting systems may include:

internal and external reporting requirements

Unit Sector(s)

Not applicable.

BSBMGT515A Manage operational plan

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to develop and monitor implementation of the operational plan to provide efficient and effective workplace practices within the organisation's productivity and profitability plans.</p> <p>Management at a strategic level requires systems and procedures to be developed and implemented to facilitate the organisation's operational plan.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to people who manage the work of others and operate within the parameters of a broader strategic and/or business plan. The task of the manager at this level is to develop and implement an operational plan to ensure that the objectives and strategies outlined in the strategic and/or business plan are met by work teams. However in some larger organisations operational plans may be developed by a strategic planning unit.</p> <p>At this level work will normally be carried out within complex and diverse methods and procedures, which require the exercise of considerable discretion and judgement, using a range of problem solving and decision making strategies.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop operational plan	<p>1.1. Research, analyse and document resource requirements and develop an operational plan in consultation with relevant personnel, colleagues and specialist resource managers</p> <p>1.2. Develop and/or implement consultation processes as an integral part of the operational planning process</p> <p>1.3. Ensure details of the operational plan include the development of key performance indicators to measure organisational performance</p> <p>1.4. Develop and implement contingency plans at appropriate stages of operational planning</p> <p>1.5. Ensure the development and presentation of proposals for resource requirements is supported by a variety of information sources and seek specialist advice as required</p> <p>1.6. Obtain approval for plan from relevant parties and ensure understanding among work teams involved</p>
2. Plan and manage resource acquisition	<p>2.1. Develop and implement strategies to ensure that employees are recruited and/or inducted within the organisation's human resources management policies and practices</p> <p>2.2. Develop and implement strategies to ensure that physical resources and services are acquired in accordance with the organisation's policies, practices and procedures</p>
3. Monitor and review operational performance	<p>3.1. Develop, monitor and review performance systems and processes to assess progress in achieving profit and productivity plans and targets</p> <p>3.2. Analyse and interpret budget and actual financial information to monitor and review profit and productivity performance</p> <p>3.3. Identify areas of under performance, recommend solutions, and take prompt action to rectify the situation</p> <p>3.4. Plan and implement systems to ensure that mentoring and coaching are provided to support individuals and teams to effectively, economically and safely use resources</p> <p>3.5. Negotiate recommendations for variations to operational plans and gain approval from designated persons/groups</p>

ELEMENT	PERFORMANCE CRITERIA
	3.6. Develop and implement systems to ensure that procedures and records associated with documenting performance are managed in accordance with organisational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- literacy skills to access and use workplace information and to write a succinct and practical plan
- technology skills to use software to produce and monitor the plan against performance indicators
- planning and organisational skills
- coaching skills to work with people with poor performance
- numeracy skills to allocate and manage financial resources.

Required knowledge

- models and methods for operational plans
- budgeting processes
- alternative approaches to improving resource usage and eliminating resource inefficiencies and waste.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> development of an operational plan with details of how it will be implemented and monitored knowledge of models and methods for operational plans.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate oral or written questioning to assess knowledge of budgeting processes review of operational plan, key performance indicators and contingency plans evaluation of employee recruitment and induction strategies evaluation of processes implemented to acquire physical resources and services.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other units from the Diploma of Management.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Resource requirements</i> may include:</p>	<ul style="list-style-type: none"> • goods and services to be purchased and ordered • human, physical and financial resources - both current and projected • stock requirements and requisitions
<p><i>Relevant personnel, colleagues and specialist resource managers</i> may include:</p>	<ul style="list-style-type: none"> • employees at the same level or more senior managers • managers • occupational health and safety committee/s and other people with specialist responsibilities • supervisors • union or employee representatives
<p><i>Consultation processes</i> may refer to:</p>	<ul style="list-style-type: none"> • email/intranet communications, newsletters or other processes and devices which ensure that all employees have the opportunity to contribute to team and individual operational plans • mechanisms used to provide feedback to the work team in relation to outcomes of consultation • meetings, interviews, brainstorming sessions
<p><i>Operational plans</i> may also be termed:</p>	<ul style="list-style-type: none"> • action plans • annual plans • management plans • tactical plans
<p><i>Key performance indicators</i> may refer to:</p>	<ul style="list-style-type: none"> • measures for monitoring or evaluating the efficiency or effectiveness of a system which may be used to demonstrate accountability and to identify areas for improvements
<p><i>Contingency plans</i> may include:</p>	<ul style="list-style-type: none"> • contracting out or outsourcing human resources and other functions or tasks • diversification of outcomes • finding cheaper or lower quality raw materials

RANGE STATEMENT	
	<p>and consumables</p> <ul style="list-style-type: none"> • increasing sales or production • recycling and re-using • rental, hire purchase or alternative means of procurement of required materials, equipment and stock • restructuring of organisation to reduce labour costs • risk identification, assessment and management processes • seeking further funding • strategies for reducing costs, wastage, stock or consumables • succession planning
<i>Organisation's policies, practices and procedures</i> may include:	<ul style="list-style-type: none"> • organisational culture • organisational guidelines which govern and prescribe operational functions, such as the acquisition and management of human and physical resources • Standard Operating Procedures • undocumented practices in line with organisational operations
<i>Designated persons/groups</i> may include:	<ul style="list-style-type: none"> • groups designated in workplace policies and procedures • managers or supervisors whose roles and responsibilities include decision making on operations • other stakeholders such as Board members • other work groups or teams whose work will be affected by recommendations for variations

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units		

BSBMGT608C Manage innovation and continuous improvement

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to sustain and develop an environment in which continuous improvement, innovation and learning are promoted and rewarded.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to people with managerial responsibilities, including for building a better and more effective work environment. Continuous improvement and innovation have links with the model of the learning organisation and people working at this level play an important role in building the culture, values and attitudes of the organisation.</p> <p>Links may be made between continuous improvement and formal quality systems, such as International Organization for Standardization (ISO) or quality software. However it is not assumed that formal quality systems or software are in the workplace.</p> <p>Innovation is seen as an important attitude and set of practices, which should be fostered by people working at this level in teams and across the organisation.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Review programs, systems and processes	1.1. Establish strategies to monitor and evaluate performance and <i>sustainability</i> of key systems and processes 1.2. Undertake detailed analyses of <i>supply chains</i> , and operational, product and service delivery systems 1.3. Identify performance measures, and assessment tools and techniques, and evaluate their effectiveness 1.4. Analyse <i>performance reports</i> and variance from plans for key result areas of the organisation 1.5. Identify and analyse changing trends and opportunities relevant to the organisation 1.6. Seek advice from specialists, where appropriate, to identify technology and electronic commerce opportunities
2. Develop options for continuous improvement	2.1. Brief groups on performance improvement strategies and innovation as an essential element of competition 2.2. Foster creative climate and organisational learning by promoting interaction within and between work groups 2.3. Encourage, test and recognise new ideas and entrepreneurial behaviour where successful 2.4. Accept failure of an idea during trialling, and recognise, celebrate and embed success into systems 2.5. Undertake risk management and cost-benefit analysis for each option or idea approved for trial 2.6. Approve innovations through agreed organisational processes
3. Implement innovative processes	3.1. Promote continuous improvement and sustainability as essential to doing business 3.2. Address impact of change and consequences for people, and implement transition plans 3.3. Ensure objectives, timeframes, measures and communication plans are in place to manage implementation 3.4. Implement contingency plans in the event of non-performance 3.5. Follow up failure by prompt investigation and analysis of causes and manage emerging challenges and opportunities effectively

ELEMENT	PERFORMANCE CRITERIA
	3.6. Ensure that learnings from activities are captured and managed to inform future work 3.7. Regularly evaluate continuous improvement systems and processes 3.8. Communicate costs and benefits of innovations and improvements to relevant groups and individuals

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to identify improvement opportunities in relation to:
 - concepts and ideas developed
 - services or products delivered
- flexibility and creativity skills to think laterally
- learning skills to develop options for continuous improvement
- teamwork and leadership skills to foster a commitment to quality and an openness to innovation

Required knowledge

- cost-benefit analysis methods
- creativity and innovation theories and concepts
- organisational learning principles
- quality management and continuous improvement theories
- risk management
- sustainability practices

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • demonstration of consultation processes to introduce or evaluate an existing continuous improvement process or system, including suggested actions or an action plan • generation of an idea or concept that exhibits creative thinking and offers the possibility of benefiting the organisation • demonstration of how the concept or idea was introduced, tested and evaluated, which does not have to have been shown to work or to be adopted by the business • application of knowledge of quality management and continuous improvement theories.
Context of and specific resources for assessment	Assessment must ensure access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>The following assessment methods are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • assessment of reports • direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance by the candidate • observation of presentations • oral or written questioning to assess knowledge of creativity and innovation theories and concepts • evaluation of strategies established to monitor and evaluate performance of key systems and processes • review of briefing of groups on performance improvement strategies and innovation • review of documentation communicating costs and benefits of innovations and improvements to relevant groups and individuals.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Sustainability may include:

- addressing environmental and resource sustainability initiatives, such as environmental management systems, action plans, green office programs, surveys and audits
- applying the waste management hierarchy in the workplace
- complying with regulations and corporate social responsibility considerations for sustainability to enhance the organisation's standing in business and community environments
- determining organisation's most appropriate waste treatment, including waste to landfill, recycling, re-use, recoverable resources and wastewater treatment
- implementing ecological footprint
- implementing environmental management systems, e.g. ISO 14001:1996 Environmental management systems life cycle analyses
- implementing government initiatives, e.g. Australian government's Greenhouse Challenge Plus
- improving resource and energy efficiency
- initiating and maintaining appropriate organisational procedures for operational energy consumption
- introducing a green office program - a cultural change program
- introducing green purchasing
- introducing national and international reporting initiatives, e.g. Global Reporting Initiative
- introducing product stewardship
- reducing emissions of greenhouse gases
- reducing use of non-renewable resources
- referencing standards, guidelines and approaches, such as sustainability covenants and compacts or triple bottom line reporting
- supporting sustainable supply chain.

Supply chains include:

- network of facilities that procures raw materials, transforms them into intermediate products or services

RANGE STATEMENT	
	<p>and then finished goods or service, and delivers them through a distribution system</p> <ul style="list-style-type: none"> • procurement, production and distribution, viewed as interlinked not as discrete elements.
<p><i>Performance reports</i> may include:</p>	<ul style="list-style-type: none"> • budget or cost variance • customer service • environmental • financial • OHS • quality • other operating parameters.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and leadership - management
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Co-requisite units

Co-requisite units		

BSBOHS401B Contribute to the implementation of a systematic approach to managing OHS

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to effectively contribute to the application of a systematic approach to managing occupational health and safety (OHS) to ensure that the workplace is, as far as is practicable, safe and without risks to the health of employees and others.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with supervisory responsibilities for implementing and monitoring the organisation's OHS policies, procedures and programs in a work area. It includes contributing to the implementation of developed strategies, systems and plans, as well as recognising the need for expert advice.</p> <p>The unit may apply both in a work unit of a large organisation or in a small to medium enterprise.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Contribute to the implementation of information and data systems</p>	<p>1.1. Identify and address requirements for record keeping</p> <p>1.2. Identify, access and evaluate sources of OHS information and data for application in the workplace</p> <p>1.3. Take actions to ensure that records are accurately completed, collected and stored</p> <p>1.4. Provide information and data to managers and stakeholders in a readily understood format</p> <p>1.5. Monitor and evaluate the effectiveness of recordkeeping actions taken</p>
<p>2. Contribute to the implementation of OHS strategies, systems and plans</p>	<p>2.1. Determine OHS priorities in consultation with appropriate managers and in line with other consultative arrangements in the workplace</p> <p>2.2. Develop OHS action plans taking account of priorities</p> <p>2.3. Identify and document OHS training needs</p> <p>2.4. Monitor action plans for achievement, and update as required</p> <p>2.5. Seek input from OHS specialists and technical advisors if required</p>
<p>3. Support integration of OHS within the overall management approach</p>	<p>3.1. Identify other functional areas that impact on OHS</p> <p>3.2. Implement strategies for addressing these impacts</p> <p>3.3. Work with managers and stakeholders as appropriate to implement OHS action plans</p>
<p>4. Identify OHS implications of proposed changes to the workplace and provide advice to control risks</p>	<p>4.1. Evaluate proposed changes to the workplace for OHS implications</p> <p>4.2. Identify resulting hazards and assess potential risks</p> <p>4.3. Provide appropriate advice to control risks and action as appropriate</p>
<p>5. Identify implications of all sources of change to managing OHS and provide advice regarding those changes</p>	<p>5.1. Identify and evaluate changes to relevant legislation for implications for managing OHS</p> <p>5.2. Identify and evaluate changes to relevant standards or industry practice for implications for managing OHS</p> <p>5.3. Monitor sources of information and data for impact on hazards, risks and the management of OHS</p> <p>5.4. Provide appropriate advice to address impact of</p>

ELEMENT	PERFORMANCE CRITERIA
	change
6. Evaluate effectiveness of the approach to managing OHS	6.1. Access sources of external and internal OHS information and data as part of evaluation 6.2. Identify the need for any external input to evaluation and action as appropriate 6.3. Consult <i>stakeholders</i> for input to the evaluation 6.4. Identify, document and action areas for improvement

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities at all levels of the organisation
- interpersonal skills to consult on and negotiate the development, implementation and monitoring of OHS actions
- organisational and time management skills to sequence tasks and meet timelines
- research and data analysis skills to evaluate relevant workplace OHS data trends and to recognise limitations of data collected
- observation skills to investigate the interactions between people, their activities, environment and systems
- numeracy skills to carry out simple calculations and to produce graphs about OHS activities
- technology skills to use a range of software and office equipment to access internal and external data on OHS
- conflict management and resolution skills to address small disputes relating to OHS implementation issues
- interpersonal skills to build relationships with stakeholders (internal and external to the organisation).

Required knowledge

- internal and external sources of OHS information and data
- organisational policies and procedures for OHS
- legislative requirements for:
 - consultation
 - information and data collection
 - notification of incidents
 - record keeping
 - reporting of incidents
- principles and practices of systematic approaches to managing OHS
- principles relating to:
 - hazard identification
 - hierarchy of control
 - risk management
 - systematic approaches to OHS
- range of communication strategies to communicate effectively with people at all levels of the organisation
- relevant state/territory and commonwealth OHS legislation, codes of practice and

REQUIRED SKILLS AND KNOWLEDGE

standards

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| <ul style="list-style-type: none">• roles and responsibilities of personnel as specified in relevant OHS legislation. |
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Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • contribution to the implementation of a systematic approach to managing OHS • knowledge of relevant state/territory and commonwealth OHS legislation, codes of practice and standards.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to office equipment and resources • access to relevant legislation, standards, codes of practice and guidelines • access to workplace documentation.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques used to manage OHS in the workplace • demonstration of the application of OHS legislation in implementing a systematic approach to managing OHS • direct questioning combined with review of portfolios of evidence and third party reports of on-the-job performance by the candidate • oral or written questioning to assess knowledge of principles relating to: hazard identification, hierarchy of control, risk management, systematic approaches to OHS • review of OHS action plans, documented OHS training needs and documented action areas for improvement.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p>

EVIDENCE GUIDE

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| | <ul style="list-style-type: none">• other OHS units. |
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Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Requirements for record keeping</i> may include:</p>	<ul style="list-style-type: none"> • OHS legislation and regulations governing reporting of incidents and maintenance of records related to specific hazards, including: <ul style="list-style-type: none"> • chemical registers • material safety data sheets (MSDSs) • organisational procedures • privacy legislation
<p><i>Sources of OHS information and data</i> may include:</p>	<ul style="list-style-type: none"> • consultants • employees • government departments/agencies including OHS authorities and organisations such as the Office of the Australian Safety and Compensation Council • industry networks and associations • internet sites • manufacturers' manuals and specifications • newspapers and journals, trade/industry publications • OHS and other relevant legislation • OHS specialists • technical data
<p><i>Consultative arrangements</i> may include:</p>	<ul style="list-style-type: none"> • employee and supervisor involvement in OHS activities, such as inspections and audits • employee and workgroup meetings • health and safety and other employee representatives • OHS and other consultative and planning committees • procedures for reporting hazards, and raising and addressing OHS issues
<p><i>OHS action plans</i> may include:</p>	<ul style="list-style-type: none"> • documented plans developed within the workplace to implement OHS management, which allocate responsibilities and timeframes • OHS performance indicators for the

RANGE STATEMENT	
	organisation or enterprise
<i>OHS specialists</i> may include:	<ul style="list-style-type: none"> • ergonomists • occupational hygienists • health professionals • injury management advisors • people internal or external to the organisation
<i>Technical advisors</i> may include:	<ul style="list-style-type: none"> • engineers (such as design, acoustic, safety, mechanical and civil) • legal practitioners • maintenance and tradespeople • workplace trainers and assessors
<i>Other functional areas</i> may include:	<ul style="list-style-type: none"> • parts of the organisation or grouped responsibilities: <ul style="list-style-type: none"> • engineering and maintenance • environmental management • finance and auditing • human resources, personnel management/industrial relations • information, data and records management • logistics • purchasing procurement and contracting • quality management
<i>Proposed changes to the workplace</i> may include:	<ul style="list-style-type: none"> • changes to management practices • changes to the work environment • changes to work practices and conditions • changes to work processes and systems • introduction of contracting arrangements or other changes to work organisation • introduction of new and emerging technology • material purchases • organisational restructure • other labour market changes • plant and equipment purchases
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • community • employees • health and safety, and other employee representatives • managers • OHS committees

RANGE STATEMENT

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| | <ul style="list-style-type: none">• supervisors |
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Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units	

BSBOHS402B Contribute to the implementation of the OHS consultation process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to contribute to the promotion of consultative arrangements in the workplace by communicating, influencing and consulting as part of a systematic approach to managing occupational health and safety (OHS).</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with supervisory responsibilities for implementing and monitoring the organisation's OHS policies, procedures and programs in a work area. It addresses the formal and informal processes of ensuring people in the organisation are informed about OHS and have opportunities to effectively participate in OHS processes.</p> <p>This unit will involve working with individuals and working with groups.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Contribute to procedures to raise OHS issues or request information and data	1.1. Identify <i>strategies and tools</i> for individuals or groups to raise OHS issues or request information and data 1.2. Implement and communicate to <i>stakeholders</i> and <i>interested parties</i> procedures for individuals and groups to raise OHS issues or request information and data 1.3. Identify <i>barriers</i> to individuals or groups seeking OHS information and data or raising issues 1.4. Make recommendations to address any identified barriers
2. Contribute to procedures for communicating OHS information and data	2.1. Identify with stakeholders, needs for <i>OHS information and data</i> , communication and consultation, including relevant <i>legislative requirements</i> 2.2. Provide information and data about OHS to key personnel on a regular basis, in a readily accessible manner and appropriate to the target group 2.3. Use formal and informal <i>communication processes</i> to provide information and data about OHS 2.4. Identify any barriers to individuals or groups gaining information and data about OHS 2.5. Make recommendations to address any identified barriers 2.6. Monitor and evaluate the effectiveness of actions taken to remove barriers to individuals or groups accessing information and/or data about OHS
3. Communicate OHS information, data and advice effectively to influence management decision making and action	3.1. Provide timely and appropriate OHS information, data and advice to stakeholder groups and individuals 3.2. Make OHS-related contributions in the form of ideas, information and solutions to influence management decision making and action 3.3. Use awareness of the organisation's cultural and industrial environments when dealing with OHS issues
4. Contribute to maintaining OHS arrangements	4.1. Provide support and advice to those involved in <i>OHS consultative arrangements</i> 4.2. Support the OHS issue resolution process to facilitate timely and equitable resolution of OHS

ELEMENT	PERFORMANCE CRITERIA
	issues 4.3. Facilitate OHS consultative processes to meet legislative and workplace requirements 4.4. Monitor the effectiveness of OHS consultative and participative arrangements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- conflict management skills to address small disputes relating to OHS implementation issues
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities across all levels of an organisation
- interpersonal skills to establish and build relationships with internal and external stakeholders
- literacy skills to prepare reports for a range of target groups
- organisational and time management skills to sequence tasks, meet timelines and run efficient formal and informal meetings
- technology skills to use a range of communication media.

Required knowledge

- internal and external sources of OHS information and data
- organisational policies and procedures for OHS
- legislative requirements for:
 - consultation and communication
 - information and data collection
 - notification of incidents
 - record keeping
 - reporting of incidents
- organisational policies and procedures for managing OHS in the workplace
- principles and practices of systematic approaches to managing OHS
- principles relating to:
 - hazard identification
 - hierarchy of control
 - risk management
 - systematic approaches to OHS
- range of communication strategies to communicate effectively with people at all levels of the organisation
- relevant state/territory and commonwealth OHS legislation, codes of practice and standards
- roles and responsibilities of personnel as specified in relevant OHS legislation
- sources of OHS data.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • development and use of a product or products when contributing to the implementation of OHS processes • knowledge of relevant state/territory and commonwealth OHS legislation, codes of practice and standards.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to office equipment and resources • access to relevant legislation, standards, codes of practice and guidelines • access to workplace documentation access to workplace documentation and personnel.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques used to manage OHS in the workplace • demonstration of the application of OHS legislation in implementing a systematic approach to managing OHS • direct questioning combined with review of portfolios of evidence and third party reports of on-the-job performance by the candidate • observation of implementation of consultative techniques • observation of presentations • oral or written questioning to assess knowledge of communication strategies used to communicate effectively with people at all levels of the organisation • review of recommendations made to address any barriers to people raising OHS issues or requesting information and data

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• evaluation of support and advice provided to people involved in OHS consultative arrangements.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none">• other OHS units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Strategies and tools</i> may include:	<ul style="list-style-type: none"> • employee meetings • hazard alerts • informal discussions with team members • input to safety audits, hazard identification and risk assessment processes • intranet or email systems • meetings with health and safety, and employee representatives • OHS committees • suggestion boxes and processes • surveys, checklists • toolbox meetings
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • employees • health and safety, and other employee representatives • managers • OHS committees • supervisors
<i>Interested parties</i> may include:	<ul style="list-style-type: none"> • clients • community • contractors • visitors
<i>Barriers</i> may include:	<ul style="list-style-type: none"> • contractual arrangements • language • literacy and numeracy • shift work and rostering arrangements • specific needs of employees • timing of information provision • workplace culture related to OHS • workplace organisational structures (for example geographic, hierarchical)
<i>OHS Information and data</i> may	<ul style="list-style-type: none"> • access to training information and data • hazards that exist in the workplace

RANGE STATEMENT	
include:	<ul style="list-style-type: none"> • manufacturers' manuals and specifications • OHS consultation and participation processes • OHS legislation, codes of practice and guidelines • rights and responsibilities • risk assessments • risk control strategies • safe work procedures • workplace OHS policies and procedures
<i>Legislative requirements</i> may include:	<ul style="list-style-type: none"> • freedom of information (FOI) legislation • OHS legislation, regulations and codes of practice • workplace equity, diversity and privacy legislation
<i>Communication processes</i> may include:	<ul style="list-style-type: none"> • audio-visual media, for example video • emails, letters, minutes, memos, reports • group and individual meetings • interviews • newsletters • noticeboards • photographs, maps and plans • signs, posters and brochures
<i>OHS consultative arrangements</i> may include:	<ul style="list-style-type: none"> • employee and supervisor involvement in OHS activities such as inspections and audits • employee and workgroup meetings • health and safety representatives, and other employee representatives • OHS and other consultative and planning committees • procedures for reporting hazards, and raising and addressing OHS issues

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBOHS403B Identify hazards and assess OHS risks

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to identify hazards and to assess occupational health and safety (OHS) risks in the workplace.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with supervisory responsibilities in managing OHS in the workplace who identify hazards and assess risks using developed processes and tools.</p> <p>The unit also introduces basic incident analysis as an important skill underlying incident investigation, which is addressed in greater complexity in BSBOHS508B Participate in the investigation of incidents.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Investigate incidents for prevention	1.1. Select and use <i>appropriate techniques</i> to investigate <i>incidents</i> 1.2. Establish <i>actions and events</i> leading up to an incident, during an incident and through the post incident management phase 1.3. Analyse incident to identify the <i>hazard/s</i> 1.4. Analyse incident to identify intervention points to prevent re-occurrence
2. Access existing sources of information and data to identify hazards	2.1. Review <i>workplace sources of information and data</i> to access information and data, and to assist in identifying hazards 2.2. Access <i>external sources of information and data</i> as required 2.3. Seek input from <i>stakeholders, key personnel</i> and <i>OHS specialists</i>
3. Conduct hazard identification	3.1. Seek formal and informal <i>techniques and tools</i> to identify hazards 3.2. Select and modify a suitable technique/tool as appropriate to identify hazards 3.3. Review hazard identification techniques and tools in consultation with workers in the area, and OHS specialists if required, to ensure they are suitably comprehensive 3.4. Utilise techniques and tools and other appropriate <i>hazard identification procedures</i> to identify hazards 3.5. Provide employees and their representatives with an opportunity to participate in workplace hazard identification
4. Assess risk	4.1. Select and use a <i>risk assessment tool</i> to identify key factors contributing to risk 4.2. Apply workplace sources of information and data to evaluate the effectiveness of risk controls 4.3. Prioritise risks considering the severity and likelihood of the consequences 4.4. Involve stakeholders and key personnel in risk assessment 4.5. Document the method of risk assessment
5. Participate in implementation	5.1. Maintain a <i>hazard register</i> relevant to the workplace 5.2. Identify the level of authority within the

ELEMENT	PERFORMANCE CRITERIA
process	organisation to address the risk/s 5.3. Document and communicate outcomes of hazard identification and risk assessments to key personnel and stakeholders 5.4. Monitor and evaluate the effectiveness of own performance in identifying hazards and conducting risk assessments

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities across all levels of an organisation
- information management skills to evaluate OHS data
- interpersonal skills to establish rapport and to build networks with a range of internal and external stakeholders
- organisational and time management skills to sequence tasks and meet timelines
- research and data analysis skills to evaluate interactions between employees, their activities, equipment, environment and work systems
- technology skills to access internal and external OHS data.

Required knowledge

- basic principles of incident causation and injury processes
- legislative requirements for:
 - consultation and communication
 - information and data collection
 - notification of incidents
 - record keeping
 - reporting of incidents
 - specific hazards
- organisational culture as it impacts on the workgroup
- organisational policies and procedures for managing OHS
- organisational work processes for managing OHS
- appropriate data collection methods for OHS issues
- concepts of risks, factors that affect risk and difference between a hazard and a risk
- internal and external sources for OHS information and data
- principles and practices of systematic approaches to managing OHS
- principles, tools and techniques to identify and control workplace hazards and to manage risks in the OHS context
- relevant state/territory and commonwealth OHS legislation, codes of practice and standards
- roles and responsibilities of personnel as specified in relevant OHS legislation
- sources of OHS data.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • identification, analysis and evaluation of multiple workplace hazards using appropriate techniques and tools in a workplace • knowledge of relevant state/territory and commonwealth OHS legislation, codes of practice and standards.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual or simulated workplace • access to office equipment and resources • access to relevant legislation, standards and guidelines • access to relevant OHS documentation and records.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques used to identify, analyse and evaluate OHS hazards and risks • demonstration of the application of OHS legislation in conducting hazard identification and risk management activities • direct questioning combined with review of portfolios of evidence and third party reports of on-the-job performance by the candidate • oral or written questioning to assess knowledge of concepts of risks, factors that affect risk and difference between a hazard and a risk • review of techniques/tools used to identify hazards • evaluation of a risk assessment tools selected and used to identify key factors contributing to risk • review of risk prioritisation • review of hazard register.

EVIDENCE GUIDE

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- BSBOHS404B Contribute to the implementation of strategies to control OHS risk.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Appropriate techniques</i> may include:</p>	<ul style="list-style-type: none"> • examination of relevant information and data • inspections • interviews • simulations • timeline of actions and events • use of accident models
<p><i>Incidents</i> may include:</p>	<ul style="list-style-type: none"> • an event resulting in or having a potential for: <ul style="list-style-type: none"> • injury • ill health • damage • or loss
<p><i>Actions and events</i> may include:</p>	<ul style="list-style-type: none"> • all actions and events that may have contributed to the occurrence or severity of the incident, including: <ul style="list-style-type: none"> • design decisions • systems • people • tools • equipment • materials • fixtures • time and nature of the injury
<p><i>Hazard/s</i> may include:</p>	<ul style="list-style-type: none"> • sources or situations with a potential for harm in terms of: <ul style="list-style-type: none"> • injury • ill health • damage to property • damage to the environment • or a combination of the above
<p><i>Workplace sources of information and data</i> may</p>	<ul style="list-style-type: none"> • audits • hazard, incident and investigation reports

RANGE STATEMENT	
include:	<ul style="list-style-type: none"> • incident investigations • legislation, standards, manufacturers' manuals and specifications available at the workplace • material safety data sheets (MSDSs) and registers • minutes of meetings • reports • workplace inspections
<i>External sources of information and data</i> may include:	<ul style="list-style-type: none"> • employer groups • industry bodies • OHS professional bodies • OHS specialists • Australian Standards • manufacturers' manuals and specifications • regulatory authorities (for other relevant legislation such as acts, regulations, codes of practice) • unions • websites, journals and newsletters
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • community • employees • health and safety, and other employee representatives • managers • OHS committees • supervisors
<i>Key personnel</i> may include:	<ul style="list-style-type: none"> • managers from other areas • people involved in OHS decision making or who are impacted by decisions
<i>OHS specialists</i> may include:	<ul style="list-style-type: none"> • ergonomists • health professionals • injury management advisors • occupational hygienists
<i>Techniques and tools</i> may include:	<ul style="list-style-type: none"> • body mapping • hazard identification procedures based on checklists • interviews • MSDSs • workplace processes such as 'walk throughs', surveys and inspections

RANGE STATEMENT	
<i>Hazard identification procedures</i> may include:	<ul style="list-style-type: none"> • identifying employee concerns, such as through a hazard reporting system • input of managers, OHS representatives, OHS committee and others through consultative processes • job and work system analysis (JSA) • reviews of: <ul style="list-style-type: none"> • hazard and incident reports • investigations • OHS records • plant and equipment maintenance records • registers of hazardous substances and dangerous goods
<i>Risk assessment tools</i> may include:	<ul style="list-style-type: none"> • checklists • matrix nomograms • codes of practice • standards • guidelines
<i>Hazard register</i> may include:	<ul style="list-style-type: none"> • a list of hazards • location of hazards • range of possible scenarios or circumstances under which hazards may cause injury or damage • results of a risk analysis related to the hazards

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBOHS404B Contribute to the implementation of strategies to control OHS risk

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to contribute to the implementation of strategies to control occupational health and safety (OHS) risks.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with supervisory responsibilities for managing OHS in the workplace who contribute to the implementation of OHS risk controls in the workplace.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop option/s for risk control	1.1. Review <i>hazard register</i> , outcomes of incident investigations and risk assessments to identify <i>hazards</i> requiring control action 1.2. Apply knowledge of OHS legislation and standards to develop a range of options to control specific <i>risks</i> in the workplace 1.3. Apply the <i>principles of the hierarchy of control</i> when developing risk control options 1.4. Seek input from <i>stakeholders</i> and <i>key personnel</i> 1.5. Seek advice from <i>OHS specialists</i> and <i>technical advisors</i> where required
2. Select appropriate option/s to control risks	2.1. Review outcomes of risk assessments to inform the process of selecting option/s to control risks 2.2. Prioritise appropriate interventions when selecting risk controls 2.3. Identify potential <i>factors that may limit effectiveness of controls</i> 2.4. Consult with and involve workplace stakeholders in selecting appropriate control options 2.5. Communicate recommendations for risk control to stakeholders
3. Contribute to implementation of controls	3.1. Seek appropriate authority and relevant resources to implement controls 3.2. Identify and document <i>actions required to achieve change</i> 3.3. Consult with and involve workplace stakeholders in implementation of change 3.4. Provide advice on the fitting, use, maintenance and storage of <i>personal protective equipment</i> (PPE)
4. Contribute to monitoring and evaluation of effectiveness of controls	4.1. Monitor and evaluate the extent of change as a consequence of new controls, in consultation with stakeholders 4.2. Monitor and document compliance with new procedures 4.3. Access <i>workplace sources of information and data</i> to evaluate effectiveness of risk controls and to check for new hazards introduced as a result of controls 4.4. Identify areas for further improvement in consultation with stakeholders and action as

ELEMENT	PERFORMANCE CRITERIA
	appropriate 4.5.Develop and document an improvement plan

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- consultation and negotiation skills to develop risk management plans and implement risk controls effectively
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities across all levels of an organisation
- evaluation skills to analyse the effectiveness of own performance in implementing strategies chosen to control OHS risks
- information management skills to evaluate OHS data
- interpersonal skills to establish rapport and build networks with a range of internal and external stakeholders
- literacy skills to prepare reports for a range of target groups
- organisational and time management skills to sequence tasks and meet timelines
- research and data analysis skills to assess resources required to systematically manage OHS and to analyse relevant workplace information and data
- research and data analysis skills to evaluate interactions between employees, their activities, equipment, environment and work systems
- technology skills to access internal and external OHS data.

Required knowledge

- appropriate data collection methods for OHS purposes
- characteristics, mode of action and measurement of major hazard types
- concepts of risks, factors that affect risk and difference between a hazard and a risk
- internal and external sources for OHS information and data
- legislative requirements for:
 - consultation and communication
 - information and data collection
 - notification of incidents
 - record keeping
 - reporting of incidents
 - specific hazards
- organisational culture as it impacts on the workgroup
- organisational policies and procedures for managing OHS
- organisational work processes and structure
- principles and practices of systematic approaches to managing OHS
- principles of incident causation and injury processes
- principles of the hierarchy of control
- principles, tools and techniques to identify and control workplace hazards and

REQUIRED SKILLS AND KNOWLEDGE

- | |
|---|
| <p>manage risks in the OHS context</p> <ul style="list-style-type: none">• relevant state/territory and commonwealth OHS legislation, codes of practice and standards• requirements for individual fitting, use, maintenance and storage of a range of PPE items• roles and responsibilities of personnel as specified in relevant OHS legislation• sources of OHS data• standard industry controls for a range of hazards. |
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Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • contribution to the development and implementation of risk control options to control risks associated with hazards in the workplace or simulated environment • contribution to the monitoring and evaluation of the effectiveness of risk controls implemented and the making of appropriate adjustments where necessary • knowledge of the principles of the hierarchy of control.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to office equipment and resources • access to relevant legislation, standards and guidelines • access to workplace documentation.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques used to select, implement, monitor and evaluate risk controls • direct questioning combined with review of portfolios of evidence and third party reports of on-the-job performance by the candidate • observation of the application of risk control techniques • oral or written questioning to assess knowledge of the principles, tools and techniques to identify and control workplace hazards and manage risks in the OHS context • review of communication to stakeholders of recommendations for risk control • review of documented compliance with new procedures • evaluation of improvement plan.

EVIDENCE GUIDE

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- BSBOHS403B Identify hazards and assess OHS risks.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Hazard register</i> may include:	<ul style="list-style-type: none"> • a list of hazards • location of hazards • range of possible scenarios or circumstances under which hazards may cause injury or damage • results of the risk analysis related to the hazards
<i>Hazards</i> may include:	<ul style="list-style-type: none"> • sources of potential harm in terms of human injury, ill health, damage to property, damage to the environment, or a combination of these, including: <ul style="list-style-type: none"> • biological • chemical • environment • mechanical and/or electrical • physical • psychosocial • radiological • nuclear
<i>Risks</i> may include:	<ul style="list-style-type: none"> • the chance of something occurring that will result in injury or damage measured in terms of consequences (injury or damage) and likelihood of the consequence
<i>Principles of the hierarchy of control</i> may include:	<ul style="list-style-type: none"> • eliminating hazards • and where this is not practicable, minimising risk by: <ul style="list-style-type: none"> • substitution • isolating hazard from personnel • using engineering controls • using administrative controls (such as procedures, training) • using PPE

RANGE STATEMENT	
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • community • employees • health and safety, and other employee representatives • managers • OHS committees • supervisors
<i>Key personnel</i> may include:	<ul style="list-style-type: none"> • managers from other areas • people involved in OHS decision making or who are impacted by decisions
<i>OHS specialists</i> may include:	<ul style="list-style-type: none"> • ergonomists • health professionals • injury management advisors • occupational hygienists
<i>Technical advisors</i> may include:	<ul style="list-style-type: none"> • engineers (design, acoustic, safety, mechanical, civil) • legal practitioners • maintenance and tradespeople • workplace trainers and assessors
<i>Factors that may limit effectiveness of controls</i> may include:	<ul style="list-style-type: none"> • cultural diversity • language • literacy and numeracy • shift work and rostering arrangements • training required • workplace culture related to OHS, including commitment by managers and supervisors, and compliance with procedures and training • workplace organisational structures (for example geographic, hierarchical)
<i>Actions required to achieve change</i> may include:	<ul style="list-style-type: none"> • development of new procedures or revision of existing procedures • purchase of equipment or modification of equipment • training
<i>Personal protective equipment</i> may include:	<ul style="list-style-type: none"> • equipment designed to be worn by a person to provide protection from hazards such as: <ul style="list-style-type: none"> • clothing and footwear • face and eye protection • hand protection • head protection

RANGE STATEMENT	
	<ul style="list-style-type: none"> • hearing protection • respiratory protection
<p><i>Workplace sources of information and data</i> may include:</p>	<ul style="list-style-type: none"> • audits • Australian Standards • hazard and incident reports • incident investigations • manufacturers' manuals and specifications • material safety data sheets (MSDSs) and registers • minutes of meetings • OHS legislation • reports • workplace inspections

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBOHS405B Contribute to the implementation of emergency procedures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to contribute to the implementation of planning and response procedures for emergencies.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with supervisory responsibilities for managing occupational health and safety (OHS) in the workplace who contribute to the implementation of procedures for responding to emergencies. The unit assumes that expert advice will be available in identifying potential emergencies and in formulating the response plans.</p> <p>As the unit focuses on implementation of procedures already developed for short term emergency responses, it is less complex than BSBOHS508B Participate in the investigation of incidents, which has a greater scope both in situations addressed and the timeframe for action.</p> <p>Contributions to the actions to control OHS risks are covered in BSBOHS404B Contribute to the implementation of strategies to control OHS risk.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify potential emergencies	1.1. Apply knowledge of OHS <i>hazards</i> and <i>standards</i> to identify causes of potential <i>emergencies</i> 1.2. Seek input of <i>stakeholders</i> in identifying potential emergencies 1.3. Identify and liaise with appropriate <i>specialist advisors</i> and <i>emergency agencies</i> to identify causes of potential emergencies 1.4. Develop a <i>risk register</i> to identify potential emergencies and their causes
2. Identify options for initial response	2.1. Categorise major types of emergencies 2.2. Identify actions required to contain or limit potential emergencies 2.3. Identify actions required to limit impact on personnel, property and the environment 2.4. Identify requirements for liaison with emergency agencies 2.5. Prioritise actions to be taken during emergencies
3. Plan initial response procedures	3.1. Identify <i>resources</i> available and required for immediate response 3.2. Check <i>emergency equipment</i> to ensure serviceability, accessibility, cleanliness and correct location 3.3. Document actions required for a number of major types of emergency, taking account of standards, current industry practice, specialist advice and input by emergency agencies 3.4. Identify training needs and appropriate providers
4. Implement initial response procedures	4.1. Document and display actions for initial response 4.2. Understand and implement own role in emergency response
5. Contribute to post event activities	5.1. Identify and support other personnel in the <i>second response phase</i> 5.2. Make contributions to debriefing processes
6. Monitor emergency response and address deficiencies	6.1. Monitor responses to emergencies for efficiency and timeliness, in consultation with stakeholders and, as appropriate, specialist advisors and agencies 6.2. Document, and promptly and appropriately report results of monitoring to managers and key personnel 6.3. Identify areas for organisational and personal

ELEMENT	PERFORMANCE CRITERIA
	improvement and make recommendations for improvement in response to analysis of response taken

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities across all levels of an organisation
- interpersonal skills to issue instructions in an authoritative manner during unusual circumstances
- literacy skills to prepare reports for a range of target groups
- observation skills to evaluate the impact characteristics and composition of the workforce have on managing OHS
- organisational and time management skills to sequence tasks and meet timelines
- research and data analysis skills to assess resources required to systematically manage OHS and to analyse relevant workplace information and data
- research and data analysis skills to evaluate interactions between employees, their activities, equipment, environment and work systems
- technology skills to access internal and external OHS data.

Required knowledge

- basic emergency prevention controls typically installed in a workplace, such as:
 - emergency alerting systems
 - emergency protection systems
 - fire and smoke alarms, and fire extinguishers
 - required safety wear
 - security systems
- emergency alerting systems and signals used in the workplace and their meanings
- enterprise physical site and work areas
- enterprise reporting procedures in an emergency
- essential actions of self and others in an emergency
- hazards and precautions to be taken during an emergency
- hazards arising from evacuation
- information needs of emergency response personnel during reporting, arrival and response to an emergency
- OHS information needs of work unit or work team
- internal and external sources of OHS information and data
- organisational policies and procedures for OHS and acting in an emergency situation
- organisational structure, roles and responsibilities
- powers of safety representatives and other authorised OHS personnel to cease work immediately if an immediate danger to OHS exists

REQUIRED SKILLS AND KNOWLEDGE

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| <ul style="list-style-type: none">• principles and priorities for evacuation, checking and accounting for people• principles of fire protection and emergency response• relevant state/territory and commonwealth OHS legislation, codes of practice, associated standards and guidance material• roles, responsibilities and authority of OHS personnel• types of emergency responses typically used in workplaces. |
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Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • identification of a potential emergency • contribution to the implementation of procedures for preparing and responding to an emergency • evaluation of the effectiveness of the implementation strategies • knowledge of basic emergency prevention controls typically installed in a workplace.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to office equipment and resources • access to workplace documentation and actual workplaces.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of procedures implemented in response to an emergency situation • direct questioning combined with review of portfolios of evidence and third party reports of on-the-job performance by the candidate • oral or written questioning to assess knowledge of information needs of emergency response personnel during reporting, arrival and response to an emergency • review of risk register developed to identify potential emergencies and their causes • written examples of reports on responses to emergency situations • review of documentation submitted to managers and key personnel outlining monitoring of emergency response.
Guidance information for	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended,

EVIDENCE GUIDE

assessment

for example:

- BSBOHS403B Identify hazards and assess OHS risks
- BSBOHS404B Contribute to the implementation of strategies to control OHS risk.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Hazards</i> may include:</p>	<ul style="list-style-type: none"> • sources of potential harm in terms of human injury, ill health, damage to property, damage to the environment, or a combination of these, including: <ul style="list-style-type: none"> • biological • chemical • environment • mechanical and/or electrical • physical • psychosocial • radiological • nuclear
<p><i>Standards</i> may include:</p>	<ul style="list-style-type: none"> • Australian Standards • industry-specific standards • international standards
<p><i>Emergencies</i> may include:</p>	<ul style="list-style-type: none"> • emergencies requiring evacuation • explosion and bomb alerts • external emergencies and natural disasters, such as: <ul style="list-style-type: none"> • flood • storm • traffic accident • fire • explosion • hazardous substance spill • chemical spill • internal emergencies, such as: <ul style="list-style-type: none"> • loss of power • loss of water supply • structural collapse • security emergencies, such as:

RANGE STATEMENT	
	<ul style="list-style-type: none"> • armed robberies • intruders • disturbed persons • serious injury events
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • community • employees • health and safety, and other employee representatives • managers • OHS committee • supervisors
<i>Specialist advisors</i> may include:	<ul style="list-style-type: none"> • internal or external advisors in: <ul style="list-style-type: none"> • safety • chemicals • engineering • security • emergency response
<i>Emergency agencies</i> may include:	<ul style="list-style-type: none"> • fire • police • ambulance • government departments • hazardous materials response teams (Hazmat) • OHS authorities
<i>Risk register</i> may include:	<ul style="list-style-type: none"> • lists of hazards • location of hazards • range of possible scenarios or circumstances under which an emergency could occur, including natural disasters • outcomes of any risk assessment or risk ranking
<i>Resources</i> may include:	<ul style="list-style-type: none"> • emergency response personnel and equipment • first aid personnel and equipment • emergency services personnel
<i>Emergency equipment</i> may include:	<ul style="list-style-type: none"> • clothing items such as coloured hats and vests • communication equipment • evacuation alarms • evacuation equipment, especially for people with a disability

RANGE STATEMENT	
	<ul style="list-style-type: none"> • fire extinguishers and equipment • torches
<i>Second response phase</i> may include:	<ul style="list-style-type: none"> • actions required if building cannot be re-occupied • containment of personnel in evacuation area • first aid • support/counselling of personnel involved or affected

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBOHS407A Monitor a safe workplace

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to implement and monitor the organisation's occupational health and safety (OHS) policies, procedures and programs in the relevant work area to meet legislative requirements.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to employees with supervisory responsibilities for implementing and monitoring the organisation's OHS policies, procedures and programs in a work area.</p> <p>This unit applies to individuals with a broad knowledge of OHS policies who contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They provide supervision and guidance to others and have limited responsibility for the output of others.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Provide information to the workgroup about OHS policies and procedures	1.1. Accurately explain relevant provisions of <i>OHS legislation and codes of practice</i> to the workgroup 1.2. Provide information to the workgroup on the <i>organisation's OHS policies, procedures and programs</i> , ensuring it is readily accessible by the workgroup 1.3. Regularly provide and clearly explain information about <i>identified hazards and the outcomes of risk assessment</i> and control to the workgroup
2. Implement and monitor participative arrangements for the management of OHS	2.1. Explain the importance of effective consultative mechanisms in managing health and safety risks 2.2. Implement and monitor consultative procedures to facilitate participation of workgroup in management of work area hazards 2.3. Promptly deal with issues raised through consultation, in accordance with <i>organisational consultation procedures</i> 2.4. Promptly record and communicate to the workgroup the outcomes of consultation over OHS issues
3. Implement and monitor the organisation's procedures for providing OHS training	3.1. Systematically identify OHS training needs in line with organisational requirements 3.2. Make arrangements to meet OHS training needs of team members in consultation with relevant individuals 3.3. Provide workplace learning opportunities, and coaching and mentoring assistance to facilitate team and individual achievement of identified training needs 3.4. Identify and report to management the costs associated with providing training for work team, for inclusion in financial plans
4. Implement and monitor procedures for identifying hazards and assessing risks	4.1. Identify and report on hazards in work area in accordance with OHS policies and procedures 4.2. Promptly action team member hazard reports in accordance with organisational procedures
5. Implement and monitor the organisation's procedures for	5.1. Implement <i>procedures to control risks</i> using the hierarchy of controls and organisational requirements 5.2. Identify and report inadequacies in existing risk control measures in accordance with the hierarchy of

ELEMENT	PERFORMANCE CRITERIA
controlling risks	controls 5.3. Monitor outcomes of reported inadequacies, where appropriate, to ensure a prompt organisational response
6. Implement and monitor the organisation's procedures for maintaining OHS records for the team	6.1. Accurately complete and maintain OHS records of incidents of occupational injury and disease in work area in accordance with OHS legal requirements 6.2. Use aggregate information and data from work area records to identify hazards and monitor risk control procedures in work area

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to identify hazards, to assess risks in the work area and to review data relating to monitoring and evaluating incidents (accidents), environmental issues and the effectiveness of risk control measures
- literacy skills to comprehend documentation and to interpret OHS requirements
- coaching and mentoring skills to provide support to colleagues.

Required knowledge

- key provisions of relevant legislation from all levels of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - environmental issues
 - OHS
- legal responsibilities of employers, supervisors and employees in the workplace
- hazards and associated risks which exist in the workplace
- organisational policies and procedures relating to hazard management, fire, emergency, evacuation, incident (accident) investigating and reporting
- relevance of consultation as a key mechanism for improving workplace culture.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • applying organisational management systems and procedures to OHS within workgroup area • applying procedures for assessing and controlling risks to health and safety associated with those hazards, in accordance with the hierarchy of controls • providing specific, clear and accurate information and advice on workplace hazards to workgroup • knowledge of legal responsibilities of employers, supervisors and employees in the workplace.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment and resources • examples of documentation relating to hazards in the work lace • examples of documents relating to workplace safety, hazard identification and risk assessment.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of records communicating the outcomes of consultation over OHS issues to the workgroup • analysis of responses to case studies and scenarios • demonstration of techniques • review of reports to management on the costs associated with providing training for the work team • oral or written questioning to assess knowledge of workplace safety and hazards • examples of risk assessments • evaluation of actioning of team member hazard

EVIDENCE GUIDE	
	reports <ul style="list-style-type: none">• review of OHS records of occupational injury and disease incidents in work area.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: <ul style="list-style-type: none">• management units• other OHS units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>OHS legislation and codes of practice</i> may include:</p>	<ul style="list-style-type: none"> • common law duties to meet the general duty of care requirements • health and safety representatives and health and safety committees • prompt resolution of health and safety issues • provision of information, induction and training • regulations and approved codes of practice relating to hazards present in work area • relevant state/territory legislation • requirements for the maintenance and confidentiality of records of occupational injury and disease
<p><i>Organisation's OHS policies, procedures and programs</i> may include:</p>	<ul style="list-style-type: none"> • consultative arrangements for employees in work area • dangerous goods transport and storage • emergency and evacuation procedures • first aid provision/medical practitioner contact and attention • hazard reporting procedures • hazardous substances use and storage • incident (accident) investigation • OHS arrangements for on site contractors, visitors and members of public • OHS audits and safety inspections • plant and equipment maintenance and use • procedures for hazard identification • procedures for risk assessment, selection and implementation of risk control measures • purchasing policy and procedures • safe operating procedures/instructions • site access • use and care of personal protective equipment

RANGE STATEMENT	
<i>Identified hazards and the outcomes of risk assessment</i> may include:	<ul style="list-style-type: none"> • checking equipment before and during work • consulting work team members • daily informal employee consultation and regular formal employee meetings • housekeeping • OHS audits and review of audit reports • review of health and safety records including hazard reports, hazardous substances and dangerous goods registers, injury records • workplace inspections in area of responsibility
<i>Organisational consultation procedures</i> may include:	<ul style="list-style-type: none"> • attendance of health and safety representatives at management and OHS planning meetings • counselling/disciplinary processes • early response to employee suggestions, requests, reports and concerns put forward to management • election of health and safety representatives in accordance with legislative requirements • formal and informal meetings • health and safety committees • other committees, for example, planning and purchasing
<i>Procedures to control risks</i> may include:	<ul style="list-style-type: none"> • consultation with employees and their representatives • job/process/workplace re-design e.g. introduce mechanical handling equipment, re-arrange material flow/timing/scheduling, raise/lower work platforms • removing the cause of a risk at its source (eliminating the hazard) e.g. removing stored goods permanently from emergency exit passageways • selecting control measures in accordance with the hierarchy i.e. work through hierarchy from most effective to least effective control
<i>OHS records</i> may include:	<ul style="list-style-type: none"> • audit and inspection reports • consultation e.g. meetings of health & safety committees, workgroup meeting agendas including OHS items and actions • first aid/medical post records • hazardous substances registers • induction, instruction and training

RANGE STATEMENT

	<ul style="list-style-type: none"> • manufacturer's and supplier's information including dangerous goods storage lists • plant and equipment maintenance and testing reports • workers compensation and rehabilitation records • workplace environmental monitoring records
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Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBOHS408A Assist with compliance with OHS and other relevant laws

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes required to apply an understanding of the legal and regulatory framework of OHS in order to provide advice regarding the OHS legislative responsibilities of an OHS practitioner, company director, manager, supervisor and employee.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit OHS applies to individuals with supervisory responsibilities for assisting with legal compliance as part of a systematic approach to managing OHS. It includes identification of common law duty of care, appropriate legislation and regulations and the necessary actions to ensure compliance in the workplace.</p> <p>The unit may apply both in a work unit of a large organisation or in a small to medium enterprise.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine the legal framework of OHS in the workplace	1.1. Seek current legislation and related documentation relevant to OHS and the organisation's operations 1.2. Use knowledge of the relationship between OHS Acts, OHS regulations, codes of practice, associated standards and guidance material to determine legal requirements in the workplace 1.3. Identify and confirm responsibilities and requirements as specified in legislation 1.4. Clarify responsibilities and requirements and seek advice from legal advisors where necessary
2. Provide advice on OHS compliance	2.1. Provide advice to appropriate personnel about the specific legal responsibilities of employers including duty of care and how it is codified in relevant OHS legislation 2.2. Provide advice to appropriate personnel about administration of enforcement processes and instruments including penalties that apply to organisations prosecuted under relevant OHS legislation 2.3. Provide advice to appropriate personnel on how negligence is determined at statutory and common law
3. Comply with legal requirements	3.1. Take action to ensure that the workplace, including systems of work and work organisation, is appraised against and complies with relevant legislation 3.2. Identify training needs of those with OHS responsibilities and provide training as required according to legal requirements 3.3. Identify requirements for other training under OHS legislation and arrange training as required 3.4. Recognise limits of own professional expertise and consult legal advisors as required
4. Report incidents of non compliance	4.1. Raise promptly with responsible persons possible breaches as required 4.2. Provide advice on arrangements for incident reporting to government authorities in accordance with relevant OHS legislation and organisational procedures 4.3. Raise in accordance with OHS procedures inadequacies which may contribute to non

ELEMENT	PERFORMANCE CRITERIA
	compliance in systematic approaches to managing OHS procedures and/or practices
5. Contribute to ongoing monitoring of compliance with OHS legislation	5.1. Monitor compliance with OHS legislative requirements 5.2. Resolve or refer compliance issues in accordance with OHS policies and procedures, and relevant OHS legislation

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities at all levels of the organisation
- literacy skills to prepare reports for a range of target groups including OHS committee, OHS representatives, managers, supervisors
- interpersonal skills to communicate effectively with personnel at all levels of organisation, and legal and OHS specialists
- facilitation skills to conduct effective formal and informal meetings
- research and data analysis skills to analyse relevant OHS information and data, and make observations of workplace tasks and interactions between people, their activities, equipment, environment and systems in order to meet requirements of OHS legislation

Required knowledge

- relevant state/territory and commonwealth OHS legislation, codes of practice and standards
- roles and responsibilities of personnel as specified in relevant OHS legislation
- structure and forms of legislation including regulations, codes of practice, associated standards and guidance material
- requirements for reporting under OHS and other relevant legislation including obligations for notification and reporting of incidents
- concept of common law duty of care
- systematic approaches to managing and complying with OHS legislation
- professional liability in relation to giving advice

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> evidence of the application of advice regarding the legal and regulatory framework of OHS and other relevant legislation, either in an actual workplace, simulation exercise or scenario products developed for provision of advice on OHS legal compliance issues evidence of how these products were developed and used either in an actual workplace, simulation exercise or scenario.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to relevant legislation, codes of practice, standards and guidance material access to other appropriate workplace documentation reports from other parties consulted in ensuring OHS compliance
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate demonstration of techniques used to assist with compliance of OHS in the workplace oral or written questioning to assess knowledge of: how advice was provided in the workplace, interpreting and applying legislation, reporting requirements required by legislation, systematic approaches to OHS review of OHS action plans, documented OHS training needs and documents recording processes undertaken to ensure OHS compliance simulated project based activity, scenarios, case studies, role plays or actual activities associated with

EVIDENCE GUIDE	
	a systems approach to managing OHS
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none">• BSBOHS401B Contribute to implementation of a systematic approach to managing OHS

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Current Legislation and related documentation relevant to OHS will include:

- current Commonwealth and relevant state/territory OHS legislation, regulations, codes of practice, associated standards and guidance material
- workers compensation
- privacy legislation
- contract law
- trade practices
- criminal law
- common law
- industrial relations law
- equal employment opportunity and anti-discrimination law
- Australian and international standards

Responsibilities and requirements may include legal obligations under relevant OHS legislation for the following persons:

- employers
- self-employed persons
- persons in control of workplaces
- contractors
- designers, manufacturers, importers, suppliers of plant
- erectors and installers of certain plant
- manufacturers, importers and suppliers of substances
- employees
- OHS committees
- OHS representatives

Legal advisors may include:

- legal practitioners, either internal or external
- government OHS inspectors

Appropriate personnel may include:

- employers
- company directors
- managers
- supervisors
- employees

RANGE STATEMENT	
	<ul style="list-style-type: none"> • OHS representatives and committees • contractors
<i>Enforcement processes and instruments</i> may include:	<ul style="list-style-type: none"> • prohibition notices • improvement notices • on-the-spot fines • provisional improvement notices
<i>Those with OHS responsibilities</i> may include:	<ul style="list-style-type: none"> • company director • manager • supervisors • OHS representatives
<i>Responsible persons</i> may include:	<ul style="list-style-type: none"> • OHS advisor • manager • supervisor • other appropriate person(s) delegated authority to act or apply rectification controls within the organisation

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Occupational Health and Safety
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Co-requisite units

Co-requisite units		

BSBPMG510A Manage projects

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to manage a straightforward project or a section of a larger project.</p> <p>This unit addresses the management of projects including the development of a project plan, administering and monitoring the project, finalising the project and reviewing the project to identify lessons learnt for application to future projects.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>The unit focuses on the application of project management skills and the requirement to meet time lines, quality standards, budgetary limits and other requirements set for the project.</p> <p>The unit does not apply to specialist project managers. For specialist project managers, the units of competency in the Project Management competency field will be applicable.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Define project	1.1. Access <i>project scope and other relevant documentation</i> 1.2. Define project <i>stakeholders</i> 1.3. Seek clarification from <i>delegating authority</i> of any issues related to project and <i>project parameters</i> 1.4. Identify limits of own responsibility and reporting requirements 1.5. Clarify relationship of project to other projects and to the organisation's objectives 1.6. Determine and access available resources to undertake project
2. Develop project plan	2.1. Develop <i>project plan</i> including timelines, work breakdown structure, role and responsibilities and other details of how the project will be managed in relation to the project parameters 2.2. Identify and access appropriate <i>project management tools</i> 2.3. Formulate risk management plan for project, including occupational health and safety (OHS) 2.4. Develop and approve project budget 2.5. Consult team members and take their views into account in planning the project 2.6. Finalise project plan and gain any necessary approvals to commence project according to documented plan
3. Administer and monitor project	3.1. Take action to ensure project team members are clear about their responsibilities and the project requirements 3.2. Provide <i>support for project team members</i> , especially with regard to specific needs, to ensure that the quality of the expected outcomes of the project and documented time lines are met 3.3. Establish and maintain <i>required record keeping systems</i> throughout the project 3.4. Implement and monitor plans for managing project finances, resources (human, physical and technical) and quality 3.5. Complete and forward project reports as required to stakeholders 3.6. Undertake <i>risk management</i> as required to ensure

ELEMENT	PERFORMANCE CRITERIA
	project outcomes are met 3.7. Achieve project deliverables
4. Finalise project	4.1. Complete financial record keeping associated with project and check for accuracy 4.2. Assign staff involved in project to new roles or reassign to previous roles 4.3. Complete project documentation and obtain any <i>necessary sign offs</i> for concluding project
5. Review project	5.1. Review project outcomes and processes against the project scope and plan 5.2. Involve team members in the project review 5.3. Document lessons learnt from the project and report within the organisation

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication and negotiation skills to work with team members and other stakeholders to maintain project schedules
- literacy skills to read, write and review a range of documentation
- planning and organising skills to develop, monitor and maintain implementation schedules
- numeracy skills to analyse data, and to compare time lines and promotional costs against budgets
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities.

Required knowledge

- relevant legislation from all levels of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - environmental issues
 - OHS
- organisational structure, and lines of authority and communication within the organisation
- how the project relates to organisation's overall mission, goals, objectives and operations.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • development of a project plan • details of monitoring arrangement/s and evaluation of the project plan's efficacy to address time lines and budgets of project • knowledge of relevant legislation.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to workplace project documentation.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of presentations • oral or written questioning to assess knowledge of how the project relates to the organisation's overall mission, goals, objectives and operations • review of project risk management plan and project plan • evaluation of project reports forwarded to stakeholders • analysis of documentation reviewing project outcomes and processes against the project scope and plan • evaluation of documentation outlining lessons learnt from the project.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other project management units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Project scope and other relevant documentation</i> may include:	<ul style="list-style-type: none"> • contract or other agreement • project brief • project plan or summary • other documents outlining expected outcomes of the project, inclusions and exclusions from project, timeframes for project, quality standards for project, project resources
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • clients or customers (internal and external) • funding bodies • management, employees and relevant key personnel (internal and external) with special responsibilities • project sponsor
<i>Delegating authority</i> may include:	<ul style="list-style-type: none"> • customer or client • funding body • manager or management representative • project sponsor
<i>Project parameters</i> may include:	<ul style="list-style-type: none"> • finances for project • integration of project within organisation • legislative and quality standards • physical, human and technical resources available or required for project • procurement requirements associated with project • reporting requirements • risks associated with project, including OHS • scope of project • time lines
<i>Project management tools</i> may include:	<ul style="list-style-type: none"> • cost schedule control system • Critical Path Method • Gantt and bar charts • life cycle cost analysis • logistics support analysis

RANGE STATEMENT	
	<ul style="list-style-type: none"> • PERT charts • project management software • spreadsheets • technical resources required for the project, for example OHS management system tools
<i>Support for project team members</i> may include:	<ul style="list-style-type: none"> • additional physical, human and technical resources (within allocated budget) if and as required • encouragement • feedback • learning and development • regular project team meetings • supervision, mentoring and coaching
<i>Required record keeping systems</i> may include systems for:	<ul style="list-style-type: none"> • correspondence • financial data including costs, expenditure, income generated, purchases • project outcomes • quality data including any test results • recording of time spent on project and progress in completing project • samples, prototypes, models
<i>Risk management</i> may include:	<ul style="list-style-type: none"> • changing roles and responsibilities within project team • negotiating an extension of deadline, or redefining completion or quantities or quality of outcomes • outsourcing some aspects of the project • reducing costs • researching and applying more efficient methods for completing project tasks • seeking further resources to meet deadline • sharing of ideas to gain improvements to work undertaken within the project
<i>Necessary sign offs</i> may be required by:	<ul style="list-style-type: none"> • clients, customers • funding body • management • project sponsor

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units		

BSBREL401A Establish networks

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to develop and maintain effective work relationships and networks. It covers the relationship building and negotiation skills required by workers within an organisation as well as freelance or contract workers.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with a broad knowledge of networking and negotiation who contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They may have responsibility to provide guidance or to delegate aspects of tasks to others.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop and maintain business networks	1.1. Use appropriate <i>network strategies</i> to establish and maintain relationships that promote the development of business opportunities 1.2. Identify and pursue network opportunities to maximise a range of contacts 1.3. Communicate information regarding new networks to inform individuals, colleagues and clients of potential benefits 1.4. Participate in <i>professional networks and associations</i> to obtain and maintain personal knowledge and skills
2. Establish and maintain business relationships	2.1. Develop and maintain relationships to promote benefits consistent with <i>organisational/client requirements</i> 2.2. Gain and maintain trust and confidence of contacts through demonstration of high standards of business practices 2.3. Use a high level of <i>negotiation skills</i> to encourage positive outcomes 2.4. Identify difficult situations and negotiate solutions using collaborative problem-solving techniques 2.5. Seek specialist advice in the development of contacts where appropriate
3. Promote the relationship	3.1. Develop strategies to represent and promote the interests and requirements of the relationship 3.2. Use appropriate presentation skills to communicate the goals and objectives of the relationship 3.3. Effectively communicate issues, policies and practices of the relationship to a range of audiences, in writing and verbally 3.4. Obtain <i>feedback</i> to identify and develop ways to improve promotional activities within available opportunities

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to receive and report on feedback, to maintain effective relationships and to manage conflict
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities
- leadership skills to gain trust and confidence of clients and colleagues
- negotiation skills to achieve mutually acceptable outcomes
- technology skills to support effective communication and presentation.

Required knowledge

- client or organisational policies, plans and procedures
- related organisations, agencies and networks
- trends and forecasts for relevant industries, services and products.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • establishing contacts and participating in networks • identifying opportunities for networking • knowledge of related organisations, agencies and networks • maintaining records of relevant contacts.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment and resources • access to examples of networking strategies and documentation.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of documentation communicating issues, policies and practices of the relationship to a range of audiences • evaluation of promotional strategies • observation of negotiation of solutions between groups and individuals • observation of promotional presentations.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • interpersonal communication units • other relationship management units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Network strategies</i> may include:</p>	<ul style="list-style-type: none"> • association memberships • conference participation • distributing materials • individual marketing • maintaining regular contact • seminar attendance
<p><i>Professional networks and associations</i> may include:</p>	<ul style="list-style-type: none"> • advisory committees • colleagues • committees • government agencies • internal/external customers • lobby groups • local inter-agency groups • other organisations • professional/occupational associations • project specific ad hoc consultative/reference groups • specific interest or support groups • suppliers • work team
<p><i>Organisational/client requirements</i> may be included in:</p>	<ul style="list-style-type: none"> • access and equity principles and practices • defined resource parameters • ethical standards • goals, objectives, plans, systems and processes • legal and organisational policies, guidelines and requirements • marketing plan • occupational health and safety policies, procedures and programs • quality and continuous improvement processes and standards • quality assurance and/or procedures manuals

RANGE STATEMENT	
<i>Negotiation skills</i> may include:	<ul style="list-style-type: none"> • assertiveness • bargaining • collaboration • confidence building • conflict reduction • empathising • offers and counter offers • solution designing • stress management
<i>Feedback</i> may include:	<ul style="list-style-type: none"> • accuracy and sufficiency of information • appropriateness of audience • benefits to organisation • impact of message • liaison with networks • participation of competitors • use of media

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Stakeholder Relations - Relationship Management
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Co-requisite units

Co-requisite units	

BSBRES401A Analyse and present research information

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to gather, organise and present workplace information using available systems.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who are required to apply their broad knowledge of the work environment to analysis and research tasks. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Gather and organise information	1.1. Gather and organise information in a format suitable for analysis, interpretation and dissemination in accordance with organisational requirements 1.2. Access information held by the organisation ensuring accuracy and relevance in line with established organisational requirements 1.3. Ensure that methods of collecting information are reliable and make efficient use of resources in accordance with organisational requirements 1.4. Identify research requirements for combining online research with non-electronic sources of information 1.5. Use business technology to access, organise and monitor information in accordance with organisational requirements 1.6. Update, modify, maintain and store information, in accordance with organisational requirements
2. Research and analyse information	2.1. Clearly define objectives of research ensuring consistency with organisational requirements 2.2. Ensure that data and research strategies used are valid and relevant to the requirements of the research and make efficient use of available resources 2.3. Identify key words and phrases for use as part of any online search strategy, including the use of Boolean operators and other search tools 2.4. Use reliable methods of data analysis that are suitable to research purposes 2.5. Ensure that assumptions and conclusions used in analyses are clear, justified, supported by evidence and consistent with research and business objectives
3. Present information	3.1. Present recommendations and issues in an appropriate format, style and structure using suitable business technology 3.2. Structure and format reports in a clear manner that conforms to organisational requirements 3.3. Report and distribute research findings in accordance with organisational requirements 3.4. Obtain feedback and comments on suitability and sufficiency of findings in accordance with organisational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- literacy skills to read, write and understand a variety of texts; and to edit and proofread documents to ensure clarity of meaning, accuracy and consistency of information
- problem-solving skills to deal with information which is contradictory, ambiguous, inconsistent or inadequate
- technology skills to select and use technology appropriate to a task
- research skills to identify and access information.

Required knowledge

- key provisions of relevant legislation from all levels of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - occupational health and safety (OHS)
- organisational record keeping/filing systems, security procedures and safe recording practices
- organisational policies and procedures relating to distribution of workplace information, and legal and ethical obligations
- research processes and strategies to identify new sources (online and print) of information and to use them most efficiently and effectively.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • presenting information and data • maintaining and handling data and documents systematically • analysing and interpreting data to support organisational activities • knowledge of research processes and strategies to identify new sources of information.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to an actual workplace or simulated environment • access to office equipment and resources • examples of research tasks and resources.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • analysis of responses to case studies and scenarios • demonstration of techniques • observation of presentations • review of documentation outlining recommendations and issues • review of reports outlining research findings.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • general administration units • IT use units • Governance units

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Information</i> may include:</p>	<ul style="list-style-type: none"> • demographic data • service delivery records • computer databases (library catalogue, customer records, subscription database, internet) • computer files (letters, memos and other documents) • correspondence (faxes, memos, letters, email) • financial figures • forms (insurance forms, membership forms) • information on training needs • invoices (from suppliers, to debtors) • marketing reports/plans/budgets • personnel records (personal details, salary rates) • production targets • sales records (monthly forecasts, targets achieved)
<p><i>Organisational requirements</i> may include:</p>	<ul style="list-style-type: none"> • anti-discrimination and related policy • business and performance plans • Code of Conduct/Code of Ethics • defined resource parameters • ethical standards • goals, objectives, plans, systems and processes • information protocols • legal and organisational policies, guidelines and requirements • management and accountability channels • OHS policies, procedures and programs • procedures for updating records • quality assurance and/or procedures manuals • security and confidentiality requirements
<p><i>Methods of collecting</i></p>	<ul style="list-style-type: none"> • checking research provided by others

RANGE STATEMENT	
information may include:	<ul style="list-style-type: none"> • checking written material including referrals and client files • individual research • information from other organisations • interviews with community members, colleagues/customers • observation and listening • previous file records • questioning (in person or indirect) • recruitment applications and other forms
Business technology may include:	<ul style="list-style-type: none"> • answering machine • computer • fax machine • photocopier • telephone
Objectives of research may include:	<ul style="list-style-type: none"> • comparative analysis • hypothesis testing • identification of trends • industry pricing policies • process mapping • situational diagnosis
Research strategies may include:	<ul style="list-style-type: none"> • data analysis • documentation reviews • focus groups • interviewing colleagues and clients • online searching • product sampling • subscription databases
Key words and phrases may include:	<ul style="list-style-type: none"> • American spellings when searching online • cultural or geographic terms • using different thesauri in different databases
Boolean operators may include:	<ul style="list-style-type: none"> • exclude - / NOT • include +/ AND • or • phrase searching " " / () • variations, depending on the resource being used
Methods of data analysis may include:	<ul style="list-style-type: none"> • data sampling • feedback on results • peer review

RANGE STATEMENT	
	<ul style="list-style-type: none"> • review of previous research • statistical analysis
Business objectives may include:	<ul style="list-style-type: none"> • community capacity building • community development • service provision • business planning • financial performance • flexibility, responsiveness • interpersonal communication • marketing and customer service • organisational values and behaviours • people management • work procedures and quality assurance manuals
Feedback may include:	<ul style="list-style-type: none"> • audit documentation and reports • comments from community, board members, clients and colleagues • customer satisfaction questionnaires • quality assurance data • returned goods

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Knowledge Management - Research
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Co-requisite units

Co-requisite units	

Co-requisite units		

BSBRSK401A Identify risk and apply risk management processes

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to identify risks and to apply established risk management processes to a subset of an organisation or project's operations that are within the person's own work responsibilities and area of operation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with a broad knowledge of risk analysis or project management who contribute well developed skills in creating solutions to unpredictable problems through analysis and evaluation of information from a variety of sources. They may have responsibility to provide guidance or to delegate aspects of these tasks to others.</p> <p>In this unit, risks applicable within own work responsibilities and area of operation, may include projects being undertaken individually or by a team, or operations within a section of the organisation.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify risks	1.1. Identify the <i>context</i> for risk management 1.2. Identify <i>risks</i> using <i>tools</i> , ensuring all reasonable steps have been taken to identify all risks 1.3. Document identified risks in accordance with relevant policies, procedures and legislation
2. Analyse and evaluate risks	2.1. Analyse and document risks in consultation with relevant <i>stakeholders</i> 2.2. Undertake <i>risk categorisation</i> and determine <i>level of risk</i> 2.3. Document analysis processes and outcomes
3. Treat risks	3.1. Determine appropriate <i>control measures</i> for risks and assess for strengths and weaknesses 3.2. Identify control measures for all risks 3.3. Refer risks relevant to whole of organisation or having an impact beyond own work responsibilities and area of operation to others as per established policies and procedures 3.4. Choose and implement control measures for own area of operation and/or responsibilities 3.5. Prepare and implement treatment plans
4. Monitor and review effectiveness of risk treatment/s	4.1. Regularly review implemented treatment/s against <i>measures of success</i> 4.2. Use review results to improve the treatment of risks 4.3. Provide assistance to auditing risk in own area of operation 4.4. Monitor and review management of risk in own area of operation

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- literacy skills sufficient to read and understand a variety of texts; and to write, edit and proofread documents to ensure clarity of meaning, accuracy and consistency of information
- research and data collection skills to monitor and evaluate risks
- problem-solving skills to appropriately address identified risks.

Required knowledge

- Australian and international standards for risk management
- key provisions of relevant legislation from all levels of government that may affect aspects of business operations, such as:
 - anti-discrimination legislation
 - ethical principles
 - codes of practice
 - privacy laws
 - environmental issues
 - occupational health and safety
- organisational policies and procedures relating to risk management processes and strategies
- auditing requirements relating to risk management.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • identification, analysis and evaluation of risks • demonstrated understanding of personal role in relation to wider organisational or project context • demonstrated understanding of risk management processes and procedures.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to workplace documentation relating to risk management • access to risk management tools and frameworks.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of documentation outlining risk analysis processes and outcomes • analysis of responses to case studies and scenarios • oral or written questioning to assess knowledge of Australian and international standards for risk management • review of implementation of treatment plans.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • general administration units • other risk management units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Context may include:

- any related projects or organisations
- any resources, including physical assets, which are vital to operations
- key operational elements and service of the organisation
- organisation or project, how it is organised and its capabilities
- own role and responsibilities in relation to overall project or organisation design

Risks may include:

- commercial and legal relationships
- economic circumstances and scenarios
- human behaviour
- individual activities
- management activities and controls
- natural events
- political circumstances
- positive risk
- technology - technological issues

Tools may include:

- documentation to assist in process of identifying risk, and assessing impact and likelihood of occurrence
- standard instruments developed for the organisation and contextualised for sections of the workplace's operations, such as checklists and testing procedures
- tools to prioritise risks, including where relevant, numerical scoring systems for risks

Stakeholders may include:

- contractors
- employees
- financial managers
- insurance agents
- managers
- public

RANGE STATEMENT	
	<ul style="list-style-type: none"> • service providers • suppliers • unions • volunteers
<i>Risk categorisation</i> may include:	<ul style="list-style-type: none"> • likelihood of risks: <ul style="list-style-type: none"> • almost certain • likely • possible • unlikely • rare • consequences of risks: <ul style="list-style-type: none"> • insignificant • minor • moderate • major • catastrophic • current control measures
<i>Level of risk</i> may include:	<ul style="list-style-type: none"> • low, treated with routine procedures • moderate, with specific responsibility allocated for the risk, and monitoring and response procedures implemented • high, requiring action, as it has potential to be damaging to the organisation or project • extreme, requiring immediate action, as it has potential to be devastating to the organisation or project
<i>Control measures</i> may include:	<ul style="list-style-type: none"> • hierarchy of controls: <ul style="list-style-type: none"> • reduction in likelihood of risks • reduction of consequences of risks • retention of risks • risk aversion • transfer of responsibility of risks
<i>Measures of success</i> may include:	<ul style="list-style-type: none"> • costs • reductions in impact • reductions in likelihood • reductions in occurrence

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Regulation, Licensing and Risk - Risk Management
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Co-requisite units

Co-requisite units		

BSBWOR401A Establish effective workplace relationships

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to collect, analyse and communicate information and to use that information to develop and maintain effective working relationships and networks, with particular regard to communication and representation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>Frontline managers play an important role in developing and maintaining positive relationships in internal and external environments so that customers, suppliers and the organisation achieve planned outputs and outcomes. They play a prominent part in motivating, mentoring, coaching and developing team cohesion through providing leadership for the team and forming the bridge between the management of the organisation and team members.</p> <p>At this level, work will normally be carried out within routine and non routine methods and procedures, which require planning and evaluation, and leadership and guidance of others.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Collect, analyse and communicate information and ideas	1.1. Collect relevant <i>information</i> from appropriate sources and analyse and share with the work team to improve work performance 1.2. Communicate ideas and information in a manner which is appropriate and sensitive to the cultural and social diversity of the audience and any specific needs 1.3. Implement <i>consultation processes</i> to encourage employees to contribute to issues related to their work, and promptly relay feedback to the work team in regard to outcomes 1.4. Seek and value contributions from internal and external sources in developing and refining new ideas and approaches 1.5. Implement <i>processes</i> to ensure that issues raised are resolved promptly or referred to <i>relevant personnel</i> as required
2. Develop trust and confidence	2.1. Treat all internal and external contacts with integrity, respect and empathy 2.2. Use the <i>organisation's social, ethical and business standards</i> to develop and maintain effective relationships 2.3. Gain and maintain the trust and confidence of <i>colleagues, customers and suppliers</i> through competent performance 2.4. Adjust interpersonal styles and methods to meet organisation's social and cultural environment 2.5. Encourage other members of the work team to follow examples set, according to <i>organisation's policies and procedures</i>
3. Develop and maintain networks and relationships	3.1. Use <i>networks</i> to identify and build relationships 3.2. Use networks and other work relationships to provide identifiable benefits for the team and organisation
4. Manage difficulties into positive outcomes	4.1. Identify and analyse difficulties, and take action to rectify the situation within the requirements of the organisation and relevant legislation 4.2. Guide and support colleagues to resolve work difficulties 4.3. Regularly review and improve <i>workplace outcomes</i>

ELEMENT	PERFORMANCE CRITERIA
	<p>in consultation with relevant personnel</p> <p>4.4. Manage <i>poor work performance</i> within the organisation's processes</p> <p>4.5. Manage conflict constructively within the organisation's processes</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- coaching and mentoring skills to provide support to colleagues
- literacy skills to research, analyse, interpret and report information
- relationship management and communication skills to:
 - deal with people openly and fairly
 - forge effective relationships with internal and/or external people, and to develop and maintain these networks
 - gain the trust and confidence of colleagues
 - respond to unexpected demands from a range of people
 - use supportive and consultative processes effectively.

Required knowledge

- relevant legislation from all levels of government that affects business operation, especially in regard to occupational health and safety (OHS), and environmental issues, equal opportunity, industrial relations and anti-discrimination
- theory associated with managing work relationships to achieve planned outcomes:
 - developing trust and confidence
 - maintaining consistent behaviour in work relationships
 - understanding the cultural and social environment
 - identifying and assessing interpersonal styles
 - establishing, building and maintaining networks
 - identifying and resolving problems
 - resolving conflict
 - managing poor work performance
 - monitoring, analysing and introducing ways to improve work relationships.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • range of methods and techniques for communicating information and ideas to a range of stakeholders • range of methods and techniques for developing positive work relationships that build trust and confidence in the team • accessing and analysing information to achieve planned outcomes • techniques for resolving problems and conflicts and dealing with poor performance • knowledge of the theory associated with managing work relationships to achieve planned outcomes.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • demonstration of techniques in managing poor performance and communicating effectively • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of performance in role plays • observation of presentations • oral or written questioning to assess knowledge of relevant legislation • review of consultation processes implemented to encourage employees to contribute to issues related to their work • review of documentation outlining reviewing of workplace outcomes.
Guidance information for	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended,</p>

EVIDENCE GUIDE**assessment**

for example:

- other units from the Certificate IV in Frontline Management.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Information may include:</p>	<ul style="list-style-type: none"> • data appropriate to work roles and organisational policies that is shared and retrieved in writing or verbally, electronically or manually such as: <ul style="list-style-type: none"> • archived, filed and historical background data • individual and team performance data • marketing and customer related data • planning and organisational documents including the outcomes of continuous improvement and quality assurance • policies and procedures
<p>Consultation processes may include:</p>	<ul style="list-style-type: none"> • feedback to the work team and relevant personnel in relation to outcomes of the consultation process • opportunities for all employees to contribute to ideas and information about organisational issues
<p>Processes to ensure that issues raised are resolved promptly or referred may include:</p>	<ul style="list-style-type: none"> • conducting informal meetings • coordinating surveys or questionnaires • distributing newsletters or reports • exchanging informal dialogue with relevant personnel • participating in planned organisational activities
<p>Relevant personnel may include:</p>	<ul style="list-style-type: none"> • managers • OHS committee and other people with specialist responsibilities • other employees • supervisors • union representatives/groups
<p>Organisation's social, ethical and business standards may refer to:</p>	<ul style="list-style-type: none"> • implied standards such as honesty and respect relative to the organisational culture and generally accepted within the wider

RANGE STATEMENT	
	<ul style="list-style-type: none"> community • rewards and recognition for high performing staff • standards expressed in legislation and regulations such as anti-discrimination legislation • written standards such as those expressed in: <ul style="list-style-type: none"> • code of workplace conduct/behaviour • dress code • policies • statement of workplace values • vision and mission statements
<i>Colleagues, customers and suppliers</i> may include:	<ul style="list-style-type: none"> • both internal and external contacts • employees at the same level and more senior managers • people from a wide variety of social, cultural and ethnic backgrounds • team members
<i>Organisation's policies and procedures</i> may refer to:	<ul style="list-style-type: none"> • Materials Safety Data Sheets • organisational tasks and activities undertaken to meet performance outcomes • sets of accepted actions approved by the organisation • Standard Operating Procedures
<i>Networks</i> may be:	<ul style="list-style-type: none"> • established structures or unstructured arrangements and may include business or professional associations • informal or formal and with individuals or groups • internal and/or external
<i>Workplace outcomes</i> may include:	<ul style="list-style-type: none"> • OHS processes and procedures • performance of the work team
<i>Poor work performance</i> may refer to:	<ul style="list-style-type: none"> • individual team members • organisation as a whole • self • whole work team

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Industry Capability - Workplace Effectiveness
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Co-requisite units

Co-requisite units		

BSBWOR402A Promote team effectiveness

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to promote teamwork. It involves developing team plans to meet expected outcomes, leading the work team, and proactively working with the management of the organisation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>Frontline managers have an important leadership role in the development of efficient and effective work teams. They play a prominent part in team planning, supervising the performance of the team and developing team cohesion. They provide leadership for the team and bridge the gap between the management of the organisation and the team members. As such they must 'manage up' as well as manage their team/s.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan to achieve team outcomes	1.1. Identify, establish and document team purpose, roles, responsibilities, goals, plans and objectives in consultation with team members 1.2. Support team members in meeting expected outcomes
2. Develop team cohesion	2.1. Provide opportunities for input of team members into planning, decision making and operational aspects of work team 2.2. Encourage and support team members to take responsibility for own work and to assist each other in undertaking required roles and responsibilities 2.3. Provide feedback to team members to encourage, value and reward individual and team efforts and contributions 2.4. Recognise and address issues, concerns and problems identified by team members or refer to relevant persons as required
3. Participate in and facilitate work team	3.1. Actively encourage team members to participate in and take responsibility for team activities and communication processes 3.2. Give the team support to identify and resolve problems which impede its performance 3.3. Ensure own contribution to work team serves as a role model for others and enhances the organisation's image within the work team, the organisation and with clients/customers
4. Liaise with management	4.1. Maintain open communication with line manager/management at all times 4.2. Communicate information from line manager/management to the team 4.3. Communicate unresolved issues, concerns and problems raised by the team/team members to line manager/management and ensure follow-up action is taken 4.4. Communicate unresolved issues, concerns and problems related to the team/team members raised by line managers/management to the team and ensure follow-up to action is taken

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - boost team morale
 - deal with team conflict
 - deliver messages from management
 - facilitate discussion
 - mentor and coach
- leadership skills
- planning and organising skills.

Required knowledge

- organisational goals, objectives and plans
- organisational policy and procedures framework
- organisational structure, including organisational chart
- principles and techniques associated with:
 - delegation and work allocation
 - goal setting
 - group dynamics and processes
 - individual behaviour and difference
 - leadership
 - motivation
 - negotiation
 - planning.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> teamwork plan with details of how it was generated and how it will be monitored so that team goals can be met techniques in communicating information, dealing with team conflict and resolving issues knowledge of organisational goals, objectives and plans.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> analysis of responses to case studies and scenarios direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate observation of demonstrated techniques in working with team dynamics observation of performance in role plays oral or written questioning to assess knowledge of principles and techniques associated with group dynamics and processes evaluation of opportunities provided for input of team members into planning, decision making and operational aspects of work team review of feedback provided to team members review of teamwork plan.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other units from the Certificate IV in Frontline

EVIDENCE GUIDE	
	Management.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Team purpose, roles, responsibilities, goals, plans and objectives</i> may include:</p>	<ul style="list-style-type: none"> • action plans, business plans and operational plans linked to strategic plans • expected outcomes and outputs • goals for individuals and the work team • individual and team performance plans and key performance indicators • occupational health and safety (OHS) responsibilities
<p><i>Consultation</i> may include:</p>	<ul style="list-style-type: none"> • attending meetings, interviews, brainstorming sessions • using email/intranet communications, newsletters or other processes and devices which ensure that all employees have the opportunity to contribute to team and individual effectiveness • using mechanisms to provide feedback to the work team in relation to consultation outcomes
<p><i>Responsibility for own work</i> may involve:</p>	<ul style="list-style-type: none"> • individual and joint actions • individuals and teams
<p><i>Feedback</i> may refer to:</p>	<ul style="list-style-type: none"> • formal/informal gatherings between team members where there is communication on work related matters • informal communication of ideas and thoughts on specific tasks, outcomes, decisions, issues or behaviours
<p><i>Relevant persons</i> may include:</p>	<ul style="list-style-type: none"> • colleagues • direct superior or other management representatives • OHS committees and other people with specialist responsibilities
<p><i>Communication</i> may include:</p>	<ul style="list-style-type: none"> • face-to-face • formal/informal interaction

RANGE STATEMENT	
	<ul style="list-style-type: none"> • verbal, written or electronic communication
<i>Line manager/management</i> may refer to:	<ul style="list-style-type: none"> • direct superior or other management representatives

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units		

BSBWOR501B Manage personal work priorities and professional development

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to manage own performance and professional development. Particular emphasis is on setting and meeting priorities, analysing information and using a range of strategies to develop further competence.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to managers and focuses on the need for managers to be organised, focussed and skilled, in order to effectively manage the work of others. As such it is an important unit for most managers, particularly as managers serve as role models and have a significant influence on the work culture and patterns of behaviour.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish personal work goals	1.1. Serve as a positive role model in the workplace through personal work planning and organisation 1.2. Ensure personal work goals, plans and activities reflect the organisation's plans, and <i>own responsibilities and accountabilities</i> 1.3. Measure and maintain personal performance in varying work conditions, work contexts and contingencies
2. Set and meet own work priorities	2.1. Take initiative to prioritise and facilitate competing demands to achieve personal, team and organisational goals and objectives 2.2. Use <i>technology</i> efficiently and effectively to manage work priorities and commitments 2.3. Maintain appropriate work-life balance, and ensure stress is effectively managed and health is attended to
3. Develop and maintain professional competence	3.1. Assess personal knowledge and skills against <i>competency standards</i> to determine development needs, priorities and plans 3.2. Seek feedback from employees, <i>clients and colleagues</i> and use this feedback to identify and develop ways to improve competence 3.3. Identify, evaluate, select and use <i>development opportunities</i> suitable to personal learning style/s to develop competence 3.4. Undertake participation in networks to enhance personal knowledge, skills and work relationships 3.5. Identify and develop new skills to achieve and maintain a competitive edge

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to receive, analyse and report on feedback
- literacy skills to interpret written and verbal information about workplace requirements
- organisational skills to set and achieve priorities.

Required knowledge

- principles and techniques involved in the management and organisation of:
 - performance measurement
 - personal behaviour, self-awareness and personality traits identification
 - personal development plan
 - personal goal setting
 - time management
- management development opportunities and options for self
- organisation's policies, plans and procedures
- types of learning style/s and how they relate to the individual
- types of work methods and practices that can improve personal performance.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • systems and processes (electronic or paper-based) used to organise and prioritise tasks, which show how work is managed • personal development plan, with career objectives and an action plan
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of presentations • oral or written questioning to assess knowledge of work methods and practices that can improve personal performance • review of personal work goals, plans and activities • evaluation of work-life balance • review of documentation assessing personal knowledge and skills against competency standards.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other units from the Diploma of Management.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Own responsibilities and accountabilities</i> may include:</p>	<ul style="list-style-type: none"> • expectations of workplace performance as expressed in a performance plan • outputs as expressed in position descriptions or duty statements • statement of conduct outlining an individual's responsibilities/actions/performance
<p><i>Technology</i> may include:</p>	<ul style="list-style-type: none"> • computerised systems and software, databases, project management and word processing • electronic diary • personal digital assistant (PDA)
<p><i>Competency standards</i> may include:</p>	<ul style="list-style-type: none"> • enterprise-specific units of competency consistent with work requirements • nationally endorsed units of competency consistent with work requirements
<p><i>Clients and colleagues</i> may be:</p>	<ul style="list-style-type: none"> • colleagues at the same level and more senior managers • internal or external customers • people from a wide range of social, cultural and ethnic backgrounds and with a range of physical and mental abilities • team members
<p><i>Development opportunities</i> may include:</p>	<ul style="list-style-type: none"> • action learning • coaching • exchange/rotation • induction • mentoring • shadowing • structured training programs

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Management and Leadership - Management
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Co-requisite units

Co-requisite units		

BSBWOR502B Ensure team effectiveness

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to facilitate all aspects of teamwork within the organisation. It involves taking a leadership role in the development of team plans, leading and facilitating teamwork and actively engaging with the management of the organisation.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to managers and addresses the need for managers to facilitate work teams and to build a positive culture within work teams. The unit takes a systematic and planned approach to developing teams. It includes the soft skills as well as more structured approaches to the management of teams.</p> <p>At this level, work will normally be carried out within complex and diverse methods and procedures which require the exercise of considerable discretion and judgement, using a range of problem solving and decision making strategies.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish team performance plan	1.1. Consult team members to establish a common understanding of team purpose, roles, responsibilities and accountabilities in accordance with organisational goals, plans and objectives 1.2. Develop performance plans to establish expected outcomes, outputs, key performance indicators and goals for work team 1.3. Support team members in meeting expected performance outcomes
2. Develop and facilitate team cohesion	2.1. Develop strategies to ensure team members have input into planning, decision making and operational aspects of work team 2.2. Develop policies and procedures to ensure team members take responsibility for own work and assist others to undertake required roles and responsibilities 2.3. Provide feedback to team members to encourage, value and reward individual and team efforts and contributions 2.4. Develop processes to ensure that issues, concerns and problems identified by team members are recognised and addressed
3. Facilitate teamwork	3.1. Encourage team members and individuals to participate in and to take responsibility for team activities, including communication processes 3.2. Support the team in identifying and resolving work performance problems 3.3. Ensure own contribution to work team serves as a role model for others and enhances the organisation's image for all stakeholders
4. Liaise with stakeholders	4.1. Establish and maintain open communication processes with all stakeholders 4.2. Communicate information from line manager/management to the team 4.3. Communicate unresolved issues, concerns and problems raised by team members and follow-up with line manager/management and other relevant stakeholders 4.4. Evaluate and take necessary corrective action regarding unresolved issues, concerns and problems raised by internal or external stakeholders

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to explain team goals, to address team conflict and to build an environment of trust
- planning and organisational skills to keep team on track and focussed on work outcomes.

Required knowledge

- group behaviour
- strategies for mentoring and coaching to informally guide and instruct team members
- issue resolution
- strategies for gaining consensus.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • range of techniques that can be used to build work teams, strengthen communications in the team and resolve issues • methods for engaging with stakeholders and obtaining advice from outside the work team, to ensure team is focussed and on track • knowledge of group behaviour.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to appropriate documentation and resources normally used in the workplace.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • assessment of written reports • demonstration of team building techniques • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of performance in role plays • review of performance plans developed for work team • review of policies and procedures developed to ensure team members take responsibility for own work.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other units from the Diploma of Management.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Consultation</i> may refer to:</p>	<ul style="list-style-type: none"> • conducting meetings, interviews, brainstorming sessions, email/intranet communications, newsletters or other processes and devices which ensure that all employees have the opportunity to contribute to team and individual performance plans • mechanisms used to provide feedback to the work team in relation to outcomes of consultation
<p><i>Accountabilities</i> may refer to:</p>	<ul style="list-style-type: none"> • responsibilities as defined in position descriptions, codes of conduct/behaviour, duty statements or similar • statement of conduct outlining responsibilities/actions/performance
<p><i>Performance plans</i> may refer to:</p>	<ul style="list-style-type: none"> • individual performance plans linked to team goals • team plans based on work assignments and responsibilities
<p><i>Outcomes, outputs, key performance indicators</i> may refer to agreed:</p>	<ul style="list-style-type: none"> • changes in work roles and responsibilities • improved individual and team, performance and participation • improvements to systems, operations • measures for monitoring and evaluating the efficiency or effectiveness of systems or services • quality standards and expectations • targets for productivity improvements such as reduced downtime, higher production levels, decreases in absenteeism • targets for training and development
<p><i>Support</i> may include:</p>	<ul style="list-style-type: none"> • Coaching • Mentoring • Training and development opportunities • Clarification of roles and expectations

RANGE STATEMENT	
	<ul style="list-style-type: none"> • Long term or short term plans • Meetings
<i>Strategies</i> may refer to:	<ul style="list-style-type: none"> • clarification of roles and expectations • electronic communication devices and processes, such as intranet and email communication systems, to facilitate input • long-term or short-term plans factoring in opportunities for team input • mentoring and 'buddy' systems to support team members in providing input • newsletters and briefings • training and development activities
<i>Policies and procedures</i> may refer to:	<ul style="list-style-type: none"> • organisational guidelines and systems that govern operational functions • procedures that detail the activities that must be carried out for the completion of actions and tasks • Standard Operating Procedures
<i>Processes</i> may refer to:	<ul style="list-style-type: none"> • brainstorming options with the team for addressing concerns • creating a matrix of issues and concerns and distributing for comment • discussions with individuals regarding their concerns • distributing drafts for comment with a range of options for resolution of concerns • training and development sessions
<i>Stakeholders</i> may include:	<ul style="list-style-type: none"> • Board members • business or government contacts • funding bodies • union/employee groups and representatives • work team
<i>Line manager/management</i> may refer to:	<ul style="list-style-type: none"> • chief executive officer • direct superior • other management representatives

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Industry Capability - Workplace Effectiveness
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Co-requisite units

Co-requisite units		

BSBWRK402A Empower workers

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to advance the collective interests of workers and the union in the workplace, and more generally within the community, through the identification and development of activists.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p> <p>The unit sees the development of activists and the creation of worker networks as an opportunity to empower members and to provide informal education to develop collective capacity.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify commonality of issues and needs	1.1. <i>Canvass workplace issues</i> with members and potential members 1.2. Undertake <i>analysis of issue/s</i> 1.3. Ensure key issues in the workplace are agreed and conform to union policies and regulations
2. Identify and develop activists	2.1. Identify potential workplace leaders or activists 2.2. Consult members to identify activities they can undertake 2.3. Obtain required resources and provide assistance to support members and activists 2.4. Identify activist <i>development needs</i> 2.5. Ensure appropriate <i>activities</i> are agreed, explained and reviewed
3. Develop networks	3.1. Identify and document <i>aims of networks</i> 3.2. Ensure <i>networks</i> are developed resourced, supported and maintained 3.3. Ensure positive relationships are developed and maintained with network members 3.4. Utilise networks to extend participants' understanding of union and social justice issues 3.5. Monitor effectiveness of networks and <i>review</i> against documented aims of network

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- interpersonal and consultation skills to listen effectively and to ask questions
- project planning skills.

Required knowledge

- national, state/territory legislation and regulations relating to rights and responsibilities of representatives and union members, and anti-discrimination legislation especially as it pertains to employment
- relevant employment agreements, including:
 - awards
 - other industrial instruments
 - various forms of workplace agreements
- union information, such as:
 - legal right of entry
 - history (general and workplace, location and industry-specific)
 - current policies, priorities and activities
 - recruitment policies and procedures
 - membership information (benefits, rates and process for applying)
 - representation processes.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • range of skills and techniques that have led to the empowerment of groups and individuals to advocate for social change • demonstrated evidence in developing members and potential activists to achieve defined aims and, where appropriate, how networks are built • demonstrated evidence of how workplace issues were identified including surveys, questionnaires and interview notes • knowledge of national, state/territory legislation and regulations relating to rights and responsibilities of representatives and union members, and anti-discrimination legislation especially as it pertains to employment.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to workplace and union documents • examples from work with union members • support from union officials.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of demonstrated techniques in resourcing and supporting the empowerment of union members • observation of performance in role plays • observation of presentations • oral or written questioning to assess knowledge of union information • review of analysis of issues

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• review of documentation about the aims of networks• evaluation of identified activist development needs.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none">• other workplace relations units.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Canvassing</i> views of members and potential members may include:</p>	<ul style="list-style-type: none"> • conducting a survey or questionnaire • facilitating a meeting • interviews
<p><i>Workplace issues</i> may include:</p>	<ul style="list-style-type: none"> • action or proposed action taken by management • development of a collective bargaining claim • individual or collective grievance or dispute • occupational health and safety (OHS) issue/s • proposed legislative change • union issue, e.g. freedom of association or access to union support
<p><i>Analysis of issue/s</i> may include:</p>	<ul style="list-style-type: none"> • how it affects other workers • whether it is a real issue • whether it is deeply or widely felt • whether it is winnable • whether it will motivate workers
<p><i>Development needs</i> might include:</p>	<ul style="list-style-type: none"> • communication skills • industrial relations processes • information about terms and conditions • public speaking skills
<p><i>Activities</i> might include:</p>	<ul style="list-style-type: none"> • arranging a meeting • attending a meeting • becoming a delegate • collecting and distributing information • member recruitment activities • organising a petition • talking to workers
<p><i>Aims of networks</i> might include:</p>	<ul style="list-style-type: none"> • action on community issues • action on work issues • development and learning • discussion and analysis of work or industry-specific issues

RANGE STATEMENT	
	<ul style="list-style-type: none"> • mentoring, coaching and leadership development • provision of support to other members, workers, equity groups and community organisations • recruitment of members
<i>Networks</i> might include:	<ul style="list-style-type: none"> • community groups, peak bodies and other unions • other individuals • potential union members in own or other workplaces • union members/activists in own or other workplaces • workplace organising committee
<i>Reviews</i> might include:	<ul style="list-style-type: none"> • allocation of next task • analysis of outcomes • debriefings • identified further support requirements • recognition of achievement • workplace organising committee agenda

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units	

Co-requisite units		

BSBWRK403A Communicate with workers

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to communicate effectively with workers on a one to one basis and in groups in order to move them towards union membership, involvement, collectivism and activism.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Build relationship with workers	1.1. Use <i>effective communication techniques</i> to initiate contact with workers 1.2. Ascertain <i>information</i> about workers and the workplace 1.3. Encourage workers to communicate between themselves 1.4. Identify <i>barriers</i> to union membership and activism 1.5. Undertake <i>analyses of issues</i>
2. Motivate workers	2.1. Make <i>responses</i> to workers' objections 2.2. Explain the benefits of acting collectively 2.3. Use <i>motivational techniques</i>
3. Make presentations	3.1. Plan venue and equipment for the presentation 3.2. Publicise presentation to target groups of workers 3.3. Present relevant information clearly, accurately and appropriately to the needs of the workers 3.4. Utilise appropriate <i>visual aids</i> to enhance the presentation 3.5. Handle workers' questions and comments appropriately during the presentation

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- work within organising frameworks
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities
- group presentation skills
- interpersonal skills to listen effectively and to ask questions.

Required knowledge

- awards and agreements
- contemporary issues for workers
- occupational health and safety
- union campaigns
- union enrolment procedures and costs
- union rules, policies, practices and protocols
- union services.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> demonstration of a range of techniques that have led to increases in union membership or collective action which advances the members' causes knowledge of union rules, policies, practices and protocols.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to equipment for making presentations examples of one-to-one and group communication with workers support from union officials.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> analysis of responses to case studies and scenarios demonstration of techniques direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate observation of demonstrated techniques in communicating with workers and making presentations observation of presentations oral or written questioning to assess knowledge of awards and agreements review of information ascertained about workers and the workplace evaluation of explanations of the benefits of acting collectively review of how presentations were publicised to target groups of workers.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended,</p>

EVIDENCE GUIDE	
	for example: <ul style="list-style-type: none">• other workplace relations units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Effective communication techniques</i> may include:	<ul style="list-style-type: none"> • active listening • building rapport • establishing own role and purpose of visit in a way that interests the worker • initiating contact
<i>Information</i> may include:	<ul style="list-style-type: none"> • attitudes to the union • job roles and responsibilities • number of workers • past work experience • period of employment/average length of employment
<i>Barriers</i> may include:	<ul style="list-style-type: none"> • acceptance of status quo • cost • current attitudes to unions • disempowerment • fear • lack of critical awareness • lack of understanding of unions • past experiences • time
<i>Analyses of issues</i> may include:	<ul style="list-style-type: none"> • how it affects other workers • whether it is a real issue • whether it is deeply or widely felt • whether it will motivate the worker • whether it is winnable
<i>Responses</i> may include:	<ul style="list-style-type: none"> • answering the objections • equalising the barriers or objections • exploring the barriers or objections • recognising and acknowledging that the objection is real for that person
<i>Motivational techniques</i> may include:	<ul style="list-style-type: none"> • assisting workers to reflect on their issues • coaching and mentoring

RANGE STATEMENT	
	<ul style="list-style-type: none"> • exploring options for change • questioning workers about how they feel • responding empathically
<i>Visual aids</i> may include:	<ul style="list-style-type: none"> • computer-based presentations • flip charts and whiteboards • handouts • overhead transparencies • posters • videos

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK404A Promote equality of opportunity and fair treatment for all workers

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to work with diversity and to promote equality within the union and the workplace. It deals with challenging discrimination on the basis of race, sex, sexual orientation, disability, age and employment status.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Promote involvement of diverse groups	1.1. Identify barriers to participation in the workplace and the union for various groups, and develop strategies to overcome them 1.2. Implement strategies promoting participation in the workplace and the union 1.3. Acknowledge and respect <i>choices, identity and beliefs of others</i> 1.4. Identify discriminatory language and behaviour, and take appropriate action to extinguish them 1.5. Challenge inappropriate or discriminatory behaviour or communications
2. Promote elimination of discrimination	2.1. Access up-to-date information on diversity policies and initiatives 2.2. Identify equal opportunity strategies and/or diversity initiatives for inclusion in agreements and policies 2.3. Advise workers on how to achieve a fair non-discriminatory work environment 2.4. Refer workers to appropriate <i>sources of information and support</i> where there are instances of discrimination 2.5. Evaluate effectiveness of strategies to foster equality of opportunity and to make recommendations for improvements 2.6. Encourage <i>reasonable adjustments</i> to workplaces, equipment and procedures
3. Access and review policies to promote equality and fair treatment	3.1. Access relevant policies 3.2. Review and update policies to take account of diversity and to promote equality and fair treatment 3.3. Make recommendations according to <i>union procedures</i>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities
- negotiation skills
- self-awareness and self management skills.

Required knowledge

- composition of the workforce, including:
 - age
 - gender
 - cultural background
- relevant legislation, codes of practice and national standards in the areas of sexual harassment, equal opportunity, industrial relations and disability
- role and responsibilities of established bodies that cover discrimination, such as:
 - human rights and equal opportunity commissions/tribunals
 - industrial relations commissions/tribunals
 - disability discrimination agencies
 - national and international agencies that could provide information, such as legal advice.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • demonstrated evidence of actively working to promote equality of opportunity and representation within the workplace and the union; including reviewing policies and developing strategies to promote equality of opportunity and fair treatment for all workers • knowledge of relevant legislation, codes of practice and national standards in the areas of sexual harassment, equal opportunity, industrial relations and disability.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to workplace and union documents • examples from work with union members • support from union officials.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • observation of demonstrated techniques in challenging discrimination • observation of performance in role plays • observation of presentations • oral or written questioning to assess knowledge of the roles and responsibilities of established bodies that cover discrimination • assessment of action taken to extinguish discriminatory language and behaviour • review of documentation outlining reasonable adjustments to workplaces, equipment and

EVIDENCE GUIDE	
	<p>procedures</p> <ul style="list-style-type: none">• review of recommendations made to policies to promote equality and fair treatment.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none">• other workplace relations units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Choices, identity and beliefs of others</i> may include:</p>	<ul style="list-style-type: none"> • cultural identity • disabilities of all types • gender • history, issues and culture of Indigenous peoples • race/ethnicity • religion • sexual orientation
<p><i>Sources of information and support</i> may include:</p>	<ul style="list-style-type: none"> • community advocacy organisations with specific expertise related to equity group members and issues • discrimination and equal opportunity bodies, and industrial tribunals for handling cases of discrimination • human rights and equal opportunity tribunals/commissions • industrial relations commissions/tribunals • legal advisors • senior union officials • union policies
<p><i>Reasonable adjustments</i> are:</p>	<ul style="list-style-type: none"> • a requirement of legislation and government policy to ensure that all people are treated equally in their employment and training, as far as is reasonably possible
<p><i>Union procedures</i> could include:</p>	<ul style="list-style-type: none"> • committee structures within a union • committee structures within a workplace • informal/formal activist networks • provisions in workplace agreements, policies and memoranda or deeds • rules and regulations for seeking endorsement of union policies • workplace custom and practice

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK406A Participate in the bargaining process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to effectively participate in the process of bargaining to establish collective agreements that maintain and promote rights and conditions for union members.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p> <p>Individuals who perform this task of bargaining will be generally working with union staff in advocating members' interests in the development of collective agreements.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop and promote a bargaining agenda and environment	1.1. Implement organising strategies to build membership, involvement and power in the workplace 1.2. Explain steps in bargaining <i>an agreement</i> to members 1.3. Discuss merits and benefits of bargaining 1.4. Consult members in defining a bargaining agenda 1.5. Ensure initial claims or content for a new agreement are discussed and agreed with members
2. Involve membership in bargaining processes	2.1. Plan activities that involve membership in support of union claims 2.2. Support members in <i>workplace activities</i> 2.3. Advise members of employer's response and provide members with opportunities to comment and provide input 2.4. Obtain final approval from union and membership or recommence negotiations or withdraw from bargaining process
3. Implement agreement	3.1. Provide members with feedback on final outcomes and/or access to final copies of the agreement 3.2. Evaluate bargaining campaign and set processes in place to monitor implementation of the agreement 3.3. Check the workplace for compliance with the agreement

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to consult with union members and to ensure agreement and support for planned actions and strategies
- democratic decision making skills
- organising skills to prepare for and implement an effective bargaining process
- innovation skills to find meaningful ways to deal with a wide range of member issues.

Required knowledge

- bargaining theory and practices
- legislative framework for the bargaining process
- relevant policies and procedures
- relevant precedents and previous decisions.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> proposed agreement with accompanying documentation and/or explanation of how union members were involved in the process, how the agreement was presented to the employer and what their response was, and how bargaining was practiced to achieve endorsement and support for the outcome critical evaluation of the bargaining process and how it could be enhanced knowledge of bargaining theory and practices.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> actual or proposed agreement and accompanying documents used to plan for the agreement and present it to the employer documents developed in the course of the bargaining process.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> analysis of responses to case studies and scenarios demonstration of techniques direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate review of activities planned to involve membership in support of union claims review of feedback provided to members on final outcomes and/or access provided for members to final copies of the agreement.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other workplace relations units.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>An agreement</i> may include:</p>	<ul style="list-style-type: none"> • agreements around specific issues such as hours of work, breaks, rosters, treatment of workers and access to training • workplace agreements
<p><i>Workplace activities</i> may include:</p>	<ul style="list-style-type: none"> • protected industrial action • surveys and petitions • union newsletters and memos • workplace or other meetings

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK407A Provide advice to union members

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to effectively provide advice to union members about their industrial and employment rights.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify information about members' rights	1.1. Select and utilise <i>appropriate methods</i> for gathering information from members 1.2. Gather information from members in a sensitive way 1.3. Identify and access <i>sources of information</i> which impact on a member's rights 1.4. Utilise <i>effective communication techniques</i>
2. Interpret information about members' rights	2.1. Interpret information within a legal, industrial and workplace context 2.2. Take account of relevant precedents, the member's expectations, and relevant cultural factors such as gender, ethnicity or the workplace 2.3. Seek union clarification of information if necessary
3. Provide information, advice and support to members	3.1. Provide members with accurate information 3.2. Identify options and recommend action in accordance with union policies and procedures 3.3. Identify <i>opportunities to involve other members</i> /employees in the issue 3.4. Make referrals to <i>specialist services</i> where appropriate

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical and research skills to gather and utilise information about legislation, awards, agreements and other relevant industrial instruments
- culturally appropriate communication skills to relate to people from diverse backgrounds and people with diverse abilities.

Required knowledge

- common law rights and obligations
- decisions and actions of regional, national and international union bodies or other unions
- national, state/territory legislation relating to industrial relations, vocational education and training, occupational health and safety (OHS), discrimination and equal employment opportunity
- precedents for similar issues/matters
- relevant employment agreements, awards and terms, and conditions of employment
- union policies and procedures.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> demonstration of a range of examples where union members have been provided with accurate information about the union, relevant legislation, awards and worker entitlements knowledge of relevant employment agreements, awards and terms, and conditions of employment.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to workplace and union documents examples from work with union members support from union officials.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> analysis of responses to case studies and scenarios demonstration of techniques direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate observation of demonstrated techniques in speaking to workers about union matters observation of presentations oral or written questioning to assess knowledge of decisions and actions of regional, national and international union bodies or other unions review of methods used to gather information from members review of information provided to members.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other workplace relations units.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Appropriate methods</i> may include:</p>	<ul style="list-style-type: none"> • documents and other information • interviews in the workplace or elsewhere • surveys • workplace organising committee meetings
<p><i>Sources of information</i> may include:</p>	<ul style="list-style-type: none"> • awards, agreements, legislation or common law • grievances or disputes process • union and workplace policies • workplace precedents
<p><i>Effective communication techniques</i> refers to:</p>	<ul style="list-style-type: none"> • active listening • analysing and summarising • body language • interpersonal and language style • plain English • questioning (use of open or closed questions)
<p><i>Opportunities to involve other members</i> may include:</p>	<ul style="list-style-type: none"> • attending a meeting • involvement in a workplace election • joining a workplace organising committee • participating in a workplace activity, e.g. drafting a pamphlet • participating in an OHS or other committee
<p><i>Specialist services</i> may involve:</p>	<ul style="list-style-type: none"> • referral to a counselling or conciliation/mediation service • referral to a senior union officer • referral to legal counsel • relevant agency or tribunal, e.g. industrial relations tribunal

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK408A Undertake negotiations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to effectively participate in negotiations either as an individual or as a member of a negotiating team.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p> <p>The unit relates to the negotiation of a range of issues for workers, such as terms and conditions of employment, awards and agreements, workplace safety and industrial matters.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for negotiations	1.1. Encourage members to raise issues and matters of concern 1.2. Analyse the presenting issue and obtain additional information from members and others, if required 1.3. Identify the <i>purpose and objectives of the negotiation</i> and verify the claim, including top- and bottom-line positions, in consultation with members 1.4. Identify and establish priorities for the negotiation 1.5. Undertake research to develop a position which is assessed for strengths and weaknesses, takes account of member views and is assessed against relevant policies 1.6. Identify main arguments, predict opponent's arguments and consider consequences of not reaching agreement 1.7. Select a <i>negotiation style</i> and make decisions on how to present the position
2. Participate in negotiations	2.1. Assign roles for negotiators, fully brief all participants and gain support from all relevant parties for an agreed approach to the negotiations 2.2. Clearly state relevant facts to the issue presented in the negotiation and explain the strength of the agreed position 2.3. Identify <i>relevant precedents</i> and supporting arguments 2.4. Identify all negotiating positions and alternative offers 2.5. Utilise effective communication techniques and <i>techniques for dealing with conflict and deadlocks</i> 2.6. Monitor discussions, take notes and fully explore options consistent with objectives/policies 2.7. Seek adjournments where appropriate and take time to consult with others where required 2.8. Confirm agreed position or outcome in writing
3. Finalise and monitor outcomes of negotiations	3.1. Confirm agreement with the relevant authority, document the agreement and file appropriately 3.2. Report to members on outcomes of the negotiations 3.3. Put mechanisms in place to ensure agreement is implemented and implementation is monitored 3.4. Debrief negotiating participants and take follow-up

ELEMENT	PERFORMANCE CRITERIA
	action if required 3.5. Evaluate effectiveness of negotiation against objectives and relevant policies

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical and research skills to ensure proper preparation for negotiations
- communication skills to negotiate effectively
- innovation skills to find meaningful ways to deal with a wide range of member issues
- problem-solving skills to find ways to deal with blocks to negotiation.

Required knowledge

- common law rights and obligations
- decisions and actions of regional, national and international union organisations and councils
- precedents for similar issues/matters
- relevant employment agreements, awards and terms, and conditions of employment
- relevant legislation relating to industrial relations, vocational education and training, occupational health and safety, discrimination and equal employment opportunity
- relevant policies and procedures.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> demonstration of negotiations on a range of industrial and other relevant issues, with various stakeholders preparation of relevant documents to support effective negotiations knowledge of precedents for similar issues/matters.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> access to a range of scenarios relevant to the work of the candidate suitable environment for re-enacting negotiations.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> analysis of responses to case studies and scenarios demonstration of techniques direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate observation of demonstrated techniques in negotiation observation of performance in role plays observation of presentations oral or written questioning to assess knowledge of relevant policies and procedures review of position developed for the negotiation review of notes taken and options explored during the negotiation evaluation of reports to members on outcomes of the negotiations.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> other workplace relations units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Purpose and objectives of the negotiation</i> may relate to:	<ul style="list-style-type: none"> • awards and agreements • roles and responsibilities • settlement of claims • skills and training issues • terms and conditions of a contract • terms and conditions of employment • workplace health and safety issues
<i>Negotiation style</i> may be:	<ul style="list-style-type: none"> • assertive • collaborative • competitive • subordinate
<i>Relevant precedents</i> could include:	<ul style="list-style-type: none"> • industrial or legal decision/s and interpretations • issues at common law • other workplace/industry disputes and agreements • statutory and industrial rights and conditions
<i>Effective communication techniques</i> refers to:	<ul style="list-style-type: none"> • active listening • body language • interpersonal and language style • questioning (use of open or closed questions)
<i>Techniques for dealing with conflict and deadlocks</i> may include:	<ul style="list-style-type: none"> • calling in a third party • clarifying the position of both parties • notifying and undertaking industrial action • preparing a compromise or alternate position • referring back and consulting with members • restating or reframing the position

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK409A Prepare for and participate in dispute resolution

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to prepare for and participate in a dispute resolution process including a dispute over the application of terms and conditions of employment or bargaining. It covers preparation of a case, participation in a dispute resolution process and the process of appearing before a tribunal or body to assist in the resolution of the dispute.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals who have knowledge of unionism and industrial relations, and a commitment to advancing social justice principles. They provide leadership and guidance to workers and union members.</p> <p>Individuals who perform this task of dispute resolution will be generally working with union staff.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for dispute resolution	1.1. Establish facts and issues surrounding the <i>dispute</i> 1.2. Analyse key strengths and weaknesses of own and opposing case 1.3. Determine and analyse <i>dispute resolution process</i> to be applied 1.4. Identify <i>evidence</i> that can be used to support own case 1.5. Make an assessment of realistic outcomes that may be achieved and agree on objectives for participating in the processes 1.6. Develop an appropriate strategy to deal with the dispute through agreed or established processes 1.7. File appropriate documentation in accordance with the agreed procedure and/or tribunal requirements
2. Participate in dispute resolution processes	2.1. Present an outline of position to support own case and respond to and/or rebut opposing arguments 2.2. Identify common areas of agreement, seek to minimise areas of disagreement and achieve an outcome that will align with your objective/s
3. Reach an outcome to dispute resolution	3.1. Use <i>communication techniques</i> to put forward options for resolution of the dispute 3.2. Seek agreement on identified options that are consistent with own objectives 3.3. Consult with appropriate parties over authority to reach agreement on particular options 3.4. Refer to appropriate tribunal/person in accordance with the dispute resolution process where agreement cannot be reached 3.5. Clarify agreement or withdraw from dispute resolution process
4. Evaluate and review outcome against objectives	4.1. Report back to members and union on outcomes 4.2. Review outcome with members and union against objectives 4.3. Review dispute resolution processes for effectiveness

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytic skills to determine relevant facts and issues surrounding the dispute
- communication skills to obtain information from relevant parties and to attain agreement
- literacy skills to read reports and to prepare appropriate documentation
- teamwork skills to work with others effectively.

Required knowledge

- common law rights and obligations
- precedents for similar issues/matters
- relevant policies and procedures
- relevant employment agreements, awards and terms, and conditions of employment
- relevant legislation relating to industrial relations, vocational education and training, occupational health and safety, discrimination and equal employment opportunity.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • documented case relating to an individual grievance, workplace dispute or related matter, with supporting evidence of how facts were gathered and analysed, and the process that occurred to achieve a resolution • analysis of the roles of the parties involved in the dispute and the effectiveness of strategies used in the dispute resolution • knowledge of common law rights and obligations.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to a range of documents relating to a dispute.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • demonstration of techniques • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • assessment of analysis of key strengths and weaknesses of own and opposing case • review of documentation outlining position to support own case and responding to and/or rebutting opposing arguments • review of how outcomes were reported back to members and union.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other workplace relations units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Dispute</i> may relate to:	<ul style="list-style-type: none"> • bargaining dispute • grievance under an award or agreement • term of legislation, award or agreement
<i>Dispute resolution processes</i> may include:	<ul style="list-style-type: none"> • agreed dispute resolution processes • dispute resolution processes in workplace agreements • model dispute resolution processes
<i>Evidence</i> may include:	<ul style="list-style-type: none"> • custom and practice • documented interviews • precedents • relevant policies • statements
<i>Communication techniques</i> may include:	<ul style="list-style-type: none"> • active and involved listening, reframing, summarising, reflecting, clarifying, paraphrasing • body language • interpersonal and language style • problem solving • questioning (use of open or closed questions)

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

BSBWRK506A Coordinate research and analysis

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to coordinate and undertake major research projects on behalf of the union. It covers planning research, coordinating and undertaking the research process, managing information systems, compiling reports and evaluating the research process.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to individuals with a well established, sound theoretical knowledge base in unionism and industrial relations who provide leadership to members and staff in the union workplace. They carry high levels of responsibility and work at a senior level in the organisation.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and implement a project plan to undertake research activities	1.1. Define and agree <i>research project</i> objectives and timeframes 1.2. Plan research process and implement in accordance with union policies and procedures 1.3. Ensure agreed project phases, approval and review points are implemented to accommodate all project management function requirements 1.4. Evaluate research process and report in relation to established project baselines to provide appropriate measures of performance
2. Coordinate and undertake the research process	2.1. Define information needs based on work objectives and organisational requirements 2.2. Identify and allocate appropriate resources 2.3. Allocate tasks to identified staff and gain support for the project 2.4. Develop <i>strategies</i> to acquire required information 2.5. Communicate the methods and aims of the research clearly 2.6. Research information in a timely and thorough way and within resource allocation 2.7. Monitor progress of research project and adjust to respond to internal and external factors
3. Analyse information and apply the results of analysis	3.1. Ensure <i>specialist data and information</i> is collected, consolidated and analysed to recommend outcomes and to advise trends to senior staff 3.2. Develop appropriate analytical techniques and processes, and apply to information in order to achieve defined objectives and meet requirements 3.3. Analyse information to identify facts, issues, patterns, interrelationships and trends 3.4. Undertake all work in a timely manner and meet defined standards of the union
4. Manage information systems	4.1. Maintain <i>information systems</i> so that data and system integrity is guaranteed 4.2. Maintain a range of standard and complex information systems and applications in accordance with organisational standards 4.3. Integrate information in a timely and coherent manner

ELEMENT	PERFORMANCE CRITERIA
5. Compile reports from information analysis	5.1. Use the findings from the analysis to provide advice and to develop policies and solutions which meet organisational requirements 5.2. Ensure reporting of results from analysis of information includes predictions, assumptions and constraints 5.3. Ensure reporting of results and analysis of information is logically sequenced, concise and clear
6. Evaluate the research process	6.1. Identify and communicate criteria for evaluating the effectiveness of research project and phases 6.2. Implement and monitor key measurements to evaluate the effectiveness of research processes 6.3. Debrief all staff involved in research project on progress and outcomes 6.4. Use appropriate strategies to ensure project outcomes are used effectively

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- high level research and analytical skills
- project management skills
- technology skills to store data and to manage information
- well developed writing skills.

Required knowledge

- regional, national and international legislation and regulations relating to industrial relations, occupational health and safety (OHS), vocational education and training, equal opportunity and discrimination, trade practices
- industry knowledge
- union policies and procedures.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • documented research project plan, with research objectives, and the outcomes of the research project which meet the stated objectives • examples of how information and data in the union is effectively gathered and managed • knowledge of the industry/s involved in the research.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to a range of research documentation • access to systems for gathering and storing data and information.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate • review of agreed research project objectives and timeframes • oral or written questioning to assess knowledge of union policies and procedures • assessment of written reports • review of strategies developed to acquire required information • evaluation of how the methods and aims of the research were communicated.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • other workplace relations units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Research projects</i> could involve:	<ul style="list-style-type: none"> • analysis of industry specific trends, statistics and issues • comparative national and international developments • information and analysis needed to develop a campaign, strategic plan, industry or sector plan and strategy, or to bargain effectively with employers • information and analysis to conduct a strategic comprehensive corporate or community campaign
<i>Strategies</i> could include:	<ul style="list-style-type: none"> • commissioned research • computer- or web-based research • establishing expert or pre-eminent opinions • joint/collaborative work with academics, economists, social researchers, political parties, international agencies and industry groups • use of focus groups, polls and surveys
<i>Specialist data and information</i> could include:	<ul style="list-style-type: none"> • information for a specific cultural or gender perspective • information, research and data in relation to corporations and inter-related bodies and connections within an industry and the economy • labour market, industry and employment statistics and related research • OHS statistics and related research • political and community polling around specific policy issues • vocational education and training statistics and related research
<i>Information systems</i> may involve:	<ul style="list-style-type: none"> • databases and the use of spreadsheets, graphs, trend and time series, and mathematical equations

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Workforce Development - Workplace Relations
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Co-requisite units

Co-requisite units		

CPPSEC2011A Control access to and exit from premises

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to monitor and manage the access and exit of persons and vehicles from premises. It requires the ability to manage people, inspect baggage and vehicles, and manage vehicular traffic.

This unit may form part of the licensing requirements for persons engaged in security operations in those states and territories where these are regulated activities.

Application of the Unit

Application of the unit This unit of competency has wide application in the security industry in those roles involving operational activities. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Manage people.	<p>1.1 Applicable provisions of <i>legislative</i> and <i>organisational requirements</i> relevant to <i>assignment instructions</i> are identified and complied with.</p> <p>1.2 <i>Identification documentation</i> of <i>persons</i> entering premises is verified in accordance with organisational procedures.</p> <p>1.3 Entry validations are issued and collected in accordance with organisational procedures.</p> <p>1.4 <i>Incidents</i> are responded to in accordance with assignment instructions and approved procedures.</p> <p>1.5 Appropriate <i>interpersonal techniques</i> are used and personal presentation is maintained in accordance with organisational requirements.</p>
2 Inspect baggage and vehicles.	<p>2.1 Inspections of baggage and vehicles are carried out in accordance with assignment instructions and organisational procedures.</p> <p>2.2 Refusals to inspection requests are reported immediately to <i>relevant persons</i>.</p> <p>2.3 Prohibited and hazardous items are dealt with in accordance with <i>Occupational Health and Safety (OHS)</i> guidelines and organisational procedures.</p> <p>2.4 Items found during inspection procedures are recorded and reported to relevant persons in accordance with organisational procedures.</p>
3 Manage vehicular traffic.	<p>3.1 Vehicle entry validations are checked, issued and collected in accordance with assignment instructions.</p> <p>3.2 Incidents which infringe or breach assignment instructions are reported to appropriate persons.</p> <p>3.3 Vehicles carrying dispatched product are checked against relevant documentation.</p> <p>3.4 Incoming vehicles are directed to appropriate unloading or parking areas in accordance with site requirements.</p>
4 Manage access control systems.	<p>4.1 <i>Access control systems</i> are managed and monitored in accordance with assignment instructions.</p> <p>4.2 Access control systems are operated in accordance with manufacturer's instructions.</p> <p>4.3 Access control systems are activated and deactivated in accordance with assignment instructions.</p> <p>4.4 <i>Indications</i> of unauthorised entry is promptly identified and responded to in accordance with approved procedures.</p> <p>4.5 Relevant <i>documentation</i> is completed and securely</p>

ELEMENT**PERFORMANCE CRITERIA**

maintained in accordance with organisational procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

Required skills

- communicate effectively with people from different social, cultural and ethnic backgrounds and of varying physical and mental abilities
- communicate using clear and concise language
- conduct an inspection of baggage, vehicles and loads
- determine response appropriate to security risk situation
- direct vehicular traffic
- maintain goodwill and professionalism when dealing with incidents
- monitor and control access to premises
- present a professional image to members of the public and colleagues
- recognise suspicious behaviour
- record and report information
- select and use equipment appropriate to the security operation
- verify identification and authority of vehicles and persons entering premises.

Required knowledge

- approved communication terminology and codes and signals
- communication channels
- confiscation procedures
- emergency and evacuation procedures
- legal provisions relating to powers of arrest and 'use of force' guidelines
- limits of own responsibility and authority
- operational principles and features of access control systems
- operational principles of security and communications equipment
- premises layout and access points
- premises security procedures
- principles of effective communication including interpersonal techniques
- procedures for dealing with contingency measures such as incidents involving forced entry or exit from premises
- procedures to handle dangerous goods
- reporting and documentation procedures
- types of identification and authority required to confirm entry to premises.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- completing, processing and maintaining documentation
- identifying and complying with legal, procedural and site access requirements
- identifying prohibited and dangerous items and take necessary response actions
- operating a range of access control systems, security and communications equipment
- using effective communication techniques to give clear and accurate information in a form which is preferred and understood by the receiver and engages minority groups
- verifying and controlling authorised access and exit of persons, vehicles and dispatched goods to and from premises.

Context of and specific resources for assessment

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to plain English version of relevant statutes and procedures
- access to a registered provider of assessment services
- access to a suitable venue and equipment
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

This unit of competency could be assessed using the following methods of assessment:

- observation of processes and procedures
- questioning of underpinning knowledge and skills.

Guidance information for assessment

Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.

Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Legislative requirements may relate to:

- apprehension and powers of arrest
- Australian standards and quality assurance requirements
- counter-terrorism
- crowd control and control of persons under the influence of intoxicating substances
- force continuum, use of force guidelines
- general 'duty of care' responsibilities
- inspection of people and property, and search and seizure of goods
- licensing or certification requirements
- privacy and confidentiality
- relevant commonwealth, state, and territory legislation, codes and national standards for:
 - anti-discrimination
 - cultural and ethnic diversity
 - environmental issues

Organisational requirements may relate to:

- equal employment opportunity
- industrial relations
- OHS
- relevant industry codes of practice
- trespass and the removal of persons.
- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities
- OHS policies, procedures and programs
- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- roles, functions and responsibilities of security personnel
- storage and disposal of information.

Assignment instructions may include:

- assignment objectives and timeframes
- instructions from supervisor
- personal presentation requirements
- reporting and documentation requirements
- resource and equipment requirements
- specific client requirements
- work tasks and procedures.

Identification documentation may include:

- ID cards or paperwork
- letters of authority
- temporary passes
- work permits.

Persons may include:

- contractors
- delivery persons
- demonstrators
- employees
- repair persons
- sales representatives
- visitors.

Incidents may

- aggressive or abusive behaviour by visitors

include:

- complaints
- forced entry
- mislaid or forgotten pass
- non-compliance with entry requirements
- refusal to show pass
- unauthorised entry or exit of persons
- using a pass belonging to someone else.

Interpersonal techniques may involve:

- active listening
- being non-judgemental
- being respectful and non-discriminatory
- constructive feedback
- control of tone of voice and body language
- culturally aware and sensitive use of language and concepts
- demonstrating flexibility and willingness to negotiate
- effective verbal and non-verbal communication
- maintaining professionalism
- providing sufficient time for questions and responses
- reflection and summarising
- two-way interaction
- use of plain English
- use of positive, confident and cooperative language.

Relevant persons may include:

- clients
- colleagues
- emergency services personnel
- supervisor.

Occupational Health and Safety (OHS) guidelines may relate to:

- controlling and minimising risks
- correct manual handling including shifting, lifting and carrying
- environmental and conservation requirements
- first aid
- handling hazardous materials and dangerous goods
- identifying and reporting hazards and risks
- knowledge of emergency and evacuation procedures.

Access control systems may include:

- card entry systems
- computerised entry systems
- keypads and key tag systems
- photo-ID cards
- proximity card readers
- security turnstiles
- swipe cards
- traffic barriers eg boom gates.

Indications of unauthorised entry may include:

- alarm activation
- CCTV monitor
- ladders or other climbing aids
- signs of forced entry
- unusual lights
- unusual sounds.

Documentation may include:

- activity reports
- incident reports
- vehicle and personnel movements
- visitor logs
- visitor passes.

Unit Sector(s)

Unit sector Security

Competency field

Competency field Operations

CPPSEC2015A Patrol premises

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to maintain the security of premises and property. It requires the ability to conduct security patrols for a range of sites as a component of a complete zone, and the ability to respond to alarm activations as well as to conduct risk assessment to identify abnormal safety or security concerns.

This unit may form part of the licensing requirements for persons engaged in security operations in those states and territories where these are regulated activities.

Application of the Unit

Application of the unit This unit of competency has wide application in the security industry in those roles involving operational activities. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for patrol.	<p>1.1 Applicable provisions of <i>legislative</i> and <i>organisational requirements</i> relevant to <i>patrol</i> operations are identified and complied with.</p> <p>1.2 <i>Patrol tasks</i> and other <i>assignment instructions</i> are obtained and verified with <i>relevant persons</i>.</p> <p>1.3 <i>Resource and equipment</i> requirements are confirmed and organised in accordance with organisational procedures.</p> <p>1.4 Equipment is checked for operational effectiveness and faults or damage reported in accordance with organisational procedures.</p> <p>1.5 Personal dress and presentation is maintained at all times to professional standards and assignment requirements.</p>
2 Monitor premises and property.	<p>2.1 Patrol is conducted in accordance with site patrol schedules, routes and assignment instructions.</p> <p>2.2 Systematic personal safety checks are conducted on a regular basis.</p> <p>2.3 <i>Security systems</i> are operated and maintained in accordance with assignment instructions.</p> <p>2.4 Security status of the premises and property is monitored and maintained in accordance with assignment instructions.</p> <p>2.5 <i>Communication channels and processes</i> are used to maintain communication with relevant persons through duration of the assignment.</p>
3 Identify and respond to security risk situation.	<p>3.1 Potential <i>security risks</i> are identified and assessed for degree of risk to self, others, property and premises.</p> <p>3.2 <i>Response</i> is formulated and carried out within scope of own role, competence and authority.</p> <p>3.3 Requirements for assistance are identified and sought from relevant persons.</p> <p>3.4 Changing circumstances are monitored and responses are adjusted as required to maintain security.</p> <p>3.5 Relevant <i>documentation</i> is completed and securely maintained with due regard to confidentiality in accordance with organisational procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

Required skills

- communicate using appropriate channels and communication codes and signals
- determine response appropriate to security risk situation
- identify and comply with applicable legal and procedural requirements including licensing requirements
- identify and comply with security incident response procedures
- identify risk factors and assess degree of risk
- identify support and assistance requirements
- interpret alarm signals and respond accordingly
- operate and maintain a vehicle
- operate security and communications equipment
- present a professional image to members of the public and colleagues
- record, report and document information
- relate to people from a range of social, cultural and ethnic backgrounds and of varying physical and mental abilities
- select and use appropriate equipment appropriate to the security task.

Required knowledge

- applicable legislative provisions relevant to personal safety, traffic regulations and surveillance activities
- applicable licensing requirements for mobile and static patrols
- communication channels, codes and signals
- difference between procedures for mobile and static patrols
- first aid procedures and processes for their application
- general emergency and evacuation procedures
- indicators or signs of personal stress and strategies to control
- legal provisions relating to powers of arrest and 'use of force' guidelines
- limits of own responsibility and authority
- observation and monitoring techniques
- operational principles of basic security and alarm systems, communications and protective equipment
- phonetic alphabet
- premises layout and access points appropriate to assignment
- principles of effective communication including interpersonal techniques
- procedures and requirements for documenting security incidents
- procedures for conducting zoned mobile patrols
- procedures for responding to multiple alarm activations
- types of security situations which may be encountered during patrol operations and appropriate responses.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- complying with applicable legislation and procedural requirements and assignment instructions in the conduct of mobile and static patrols
- conducting a mobile patrol across a complete zone and responding effectively to numerous alarm activations
- observing and monitoring premises and property and identifying, assessing and responding appropriately to security risk situations
- operating and maintaining basic security and communications equipment
- using effective communication techniques to give clear and accurate information in a form which is preferred and understood by the receiver and which engages minority groups
- completing security patrol including processing relevant documentation and monitoring effects of stress on self.

Context of and specific resources for assessment

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to plain English version of relevant statutes and procedures
- access to a registered provider of assessment services
- access to a suitable venue and equipment
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment	<p>This unit of competency could be assessed using the following methods of assessment:</p> <ul style="list-style-type: none"> • observation of processes and procedures • questioning of underpinning knowledge and skills.
Guidance information for assessment	<p>Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.</p> <p>Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.</p> <p>Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Legislative requirements may relate to:</i>	<ul style="list-style-type: none"> • apprehension and powers of arrest • Australian standards and quality assurance requirements • counter-terrorism • crowd control and control of persons under the influence of intoxicating substances • force continuum, use of force guidelines • general 'duty of care' responsibilities • inspection of people and property, and search and seizure of goods • licensing or certification requirements • privacy and confidentiality • relevant commonwealth, state and territory legislation, codes and national standards for:
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- anti-discrimination
- cultural and ethnic diversity
- environmental issues
- equal employment opportunity
- industrial relations
- Occupational Health and Safety (OHS)
- relevant industry codes of practice
- trespass and the removal of persons
- use of restraints and weapons:
 - batons
 - firearms
 - handcuffs
 - spray.
- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities
- OHS policies, procedures and programs
- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- roles, functions and responsibilities of security personnel
- storage and disposal of information.
- on foot
- mobile using a vehicle.
- alarm responses
- external inspections
- incident responses
- internal and external patrol of premises
- observation and monitoring of premises and property
- route finding and location identification
- site escorts.
- assignment purpose and objective
- assignment tasks and procedures

Organisational requirements may relate to:

Patrol may be:

Patrol tasks may include:

Assignment instructions may

include:

- assignment timeframe
- client identification information
- incident and security risk response procedures
- patrol sites or zone
- personal presentation requirements
- personal protection equipment
- premises location and layout
- reporting and documentation requirements
- travel routes and schedules
- vehicle, resource and equipment requirements.

Relevant persons may include:

- clients
- colleagues
- emergency services personnel and agencies
- members of the public
- security personnel
- supervisor.

Resources and equipment may include:

- communication equipment
 - earpiece
 - pager
 - portable and mounted two-way radio
 - telephone and mobile phone
- data or GPS (Global Positioning System) terminals
- locks
- maps
- patrol call recording equipment
- pen and security notebook
- personal protection equipment
- security equipment
 - electronic screening equipment
 - video cameras and monitors
- torch
- transport.

Security systems may include:

- card-operated electronic access control systems
- electronic keypad operated intruder alarm systems
- locks and keys including key security systems and procedures.

Communication channels and processes may relate to:

- direct line supervision paths
- established communication protocols
- formal communication pathways
- lateral supervision paths
- organisational communication networks

Security risks may relate to:

- verbal and non-verbal communication procedures eg pro-words, phonetic alphabet, call signs, coded messages, use of abbreviations, hand signals.
- breaches of law eg criminal damage, offences against people, public order, misuse of drugs and alcohol
- emergencies eg fire, scenes of crime, accidents
- hazards eg physical, chemical, electrical, psychological, biological
- threats eg bombs, sabotage, assassination.

Response may involve:

- checking identification
- defusing the situation
- evacuating the premises
- isolating area of potential risk
- isolating risk
- issuing verbal warnings
- notifying relevant emergency services agencies
- offering assistance
- provision of first aid
- request for support and assistance
- restraint of person
- tactical withdrawal
- use of basic defensive techniques
- use of negotiation techniques.

Documentation may include:

- activity logs
- incident reports
- request for assistance forms
- security risk and incident details
- vehicle and personnel movements
- written and electronic reports.

Unit Sector(s)

Unit sector Security

Competency field

Competency field Operations

CPPSEC3007A Maintain security of environment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to maintain the safety and security of premises. It requires the ability to communicate effectively, maintain operational safety and respond appropriately to security risk situations.

This unit may form part of the licensing requirements for persons engaged in security operations in those states and territories where these are regulated activities.

Application of the Unit

Application of the unit This unit of competency has wide application in the security industry in those roles involving operational activities. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Maintain effective relations.	1.1 Applicable provisions of <i>legislative</i> and <i>organisational requirements</i> relevant to <i>assignment instructions</i> are identified and complied with.
	1.2 Effective <i>interpersonal techniques</i> are used to develop, support and promote confidence with <i>relevant persons</i> .
	1.3 Communication is courteous, professional and sensitive to individual <i>social and cultural differences</i> .
	1.4 Personal presentation is maintained in accordance with organisational requirements.
2 Maintain operational safety.	2.1 <i>Environmental factors</i> are continually monitored, assessed and reviewed to identify distinctive features and any change in characteristics that might indicate unusual or suspicious behaviour.
	2.2 Personal safety checks are made on a systematic and routine basis in accordance with organisational procedures.
	2.3 Communication is maintained continually throughout security operations using appropriate <i>communication channels and processes</i> .
	2.4 <i>Resources and equipment</i> are maintained and used appropriate to the security operation.
	2.5 <i>Security risk situations</i> are accurately identified and assessed for degree of risk to self, others, property and premises.
3 Respond to security risks.	3.1 <i>Response</i> is formulated and carried out within scope of own role, competence and authority.
	3.2 Changing circumstances are monitored and responses are adjusted as required to maintain security.
	3.3 Response initiative maximises the safety and security of self, others, property and premises.
	3.4 Requirements for specialist assistance or advice is identified and promptly sought in accordance with organisational procedures.
	3.5 Relevant <i>documentation</i> is completed and securely maintained with due regard to confidentiality in accordance with organisational procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

Required skills

- communicate effectively with people from different social, cultural and ethnic backgrounds and of varying physical and mental abilities
- communicate using appropriate channels and communication codes and signals
- determine response appropriate to security risk situation
- facilitate commonsense solutions within operating parameters
- identify and comply with applicable legal and procedural requirements including licensing requirements
- identify and comply with security incident response procedures
- identify security risk factors and conduct risk assessment
- minimise hazards and risks to the health and safety of self and others
- operate security and communications equipment
- present a professional image to members of the public and colleagues
- read, analyse and interpret information
- recognise support and assistance requirements
- record and report information
- select and use equipment appropriate to the security operation.

Required knowledge

- applicable legislative provisions relevant to 'use of force' guidelines and licensing requirements
- bomb threat and counter-terrorism procedures
- communication channels, codes and signals
- documentation procedures and processes
- emergency and evacuation procedures and instructions
- first aid principles and procedures
- limits of own responsibility and authority
- methods of restraint and associated effects (eg, restraint related injury or death)
- observation and monitoring techniques
- operational principles of security, communication and protective equipment
- premises layout and access points
- principles of effective communication including interpersonal techniques
- reporting structure and processes
- structure and responsibilities of the emergency services agencies
- types of security situations which may be encountered during guarding operations and appropriate responses.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- identifying and assessing all factors which might impact on the safety and security of persons and property
- formulating and implementing appropriate responses or contingency measures to maintain security
- systematically monitoring security activities and varying operational plans as required to meet changing circumstances
- maximising the safety and protection of people involved in incidents while carrying out response activities
- communicating effectively on a one-to-one and group basis with people from a range of diverse backgrounds and of varying abilities
- providing accurate and constructive operational observations and completing documentation in an appropriate style and format.

Context of and specific resources for assessment

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to a registered provider of assessment services
- access to a suitable venue and equipment
- access to plain English version of relevant statutes and procedures
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

This unit of competency could be assessed using the following methods of assessment:

- observation of processes and procedures

- questioning of underpinning knowledge and skills.

Guidance information for assessment

Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.

Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Legislative requirements may relate to:

- apprehension and powers of arrest
- Australian standards and quality assurance requirements
- counter-terrorism
- crowd control and control of persons under the influence of intoxicating substances
- force continuum, use of force guidelines
- general 'duty of care' responsibilities
- inspection of people and property, and search and seizure of goods
- licensing or certification requirements
- privacy and confidentiality
- relevant commonwealth, state and territory legislation, codes and national standards for:
 - anti-discrimination
 - cultural and ethnic diversity
 - environmental issues
 - equal employment opportunity

- industrial relations
- Occupational Health and Safety (OHS)
- relevant industry codes of practice
- telecommunications
- trespass and the removal of persons
- use of restraints and weapons:
 - batons
 - firearms
 - handcuffs
 - spray.
- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities
- OHS policies, procedures and programs
- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- roles, functions and responsibilities of security personnel
- storage and disposal of information.
- assignment purpose and objective
- assignment tasks and procedures
- assignment timeframe
- client identification information
- incident and security risk response procedures
- monitoring objectives
- personal presentation requirements
- personal protection equipment
- premises location and layout
- reporting and documentation requirements
- resource and equipment requirements.
- active listening
- being non-judgemental
- being respectful and non-discriminatory

Organisational requirements may relate to:

Assignment instructions may include:

Interpersonal techniques may involve:

- constructive feedback
- control of tone of voice and body language
- culturally aware and sensitive use of language and concepts
- demonstrating flexibility and willingness to negotiate
- effective verbal and non-verbal communication
- maintaining professionalism
- providing sufficient time for questions and responses
- reflection and summarising
- two-way interaction
- use of plain English
- use of positive, confident and cooperative language.

Relevant persons may include:

- clients
- colleagues
- emergency services personnel
- members of the public
- supervisor.

Social and cultural differences may relate to:

- dress and personal presentation
- food
- language
- religion
- social conventions
- traditional practices
- values and beliefs.

Environmental factors may relate to:

- access to assistance and resources
- availability of exits and opportunities for escape
- crowds
- different degrees of light including low light and darkness
- presence of several sources of threat
- time of day
- weather.

Communication channels and processes may relate to:

- direct line supervision paths
- established communication protocols
- formal communication pathways
- lateral supervision paths
- organisational communication networks
- verbal and non-verbal communication procedures eg pro-words, phonetic alphabet, call signs, coded messages, use of abbreviations, hand signals.

Resources and equipment may include:

- access to emergency services and specialist personnel
- back-up personnel
- business equipment eg computers and computer

- applications
- communication equipment eg two-way radio, pager, mobile telephone
 - defensive equipment eg batons, firearm, and the relevant licenses, permits and storage facilities
 - fire fighting equipment
 - first aid kit
 - personal protection equipment
 - security equipment eg electronic screening equipment, video cameras and monitors, alarms and signals.
- Security risks** may relate to:
- breaches of law eg criminal damage, offences against people, public order, misuse of drugs and alcohol
 - emergencies eg fire, scenes of crime, accidents
 - hazards eg physical, chemical, electrical, psychological, biological
 - threats eg bombs, sabotage, assassination.
- Response may involve:**
- checking identification
 - defusing the situation
 - evacuating the premises
 - isolating area of potential risk
 - isolating risk
 - issuing verbal warnings
 - notifying relevant emergency services agencies
 - offering assistance
 - provision of first aid
 - request for support and assistance
 - restraint of person
 - tactical withdrawal
 - use of basic defensive techniques
 - use of negotiation techniques.
- Documentation may include:**
- activity logs
 - incident reports
 - records of conversation
 - request for assistance forms
 - running sheets
 - vehicle and personnel movements
 - written and electronic reports.

Unit Sector(s)

Unit sector Security

Competency field

Competency field Operations

HLTFA301B Apply first aid

Modification History

Unit Descriptor

This unit of competency describes the skills and knowledge required to provide first aid response, life support, management of casualty(s), the incident and other first aiders, until the arrival of medical or other assistance

Application of the Unit

These skills and knowledge may be applied in a range of situations, including community and workplace settings

Training Package users should ensure implementation is consistent with any specific workplace and/or relevant legislative requirements in relation to first aid, including State/Territory requirements for currency

Application of these skills and knowledge should be contextualised as required to address specific industry, enterprise or workplace requirements and to address specific risks and hazards and associated injuries

A current Senior First Aid, Workplace Level 2 or Level 2 qualification may provide evidence of skills and knowledge required by this competency unit. However, as with all evidence of competence, evidence must be assessed against the requirements specified in the competency unit

Licensing/Regulatory Information

Pre-Requisites

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills

The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Assess the situation	<p>1.1 Identify assess and minimise hazards in the situation that may pose a risk of injury or illness to self and others</p> <p>1.2 Minimise immediate risk to self and casualty's health and safety by controlling any hazard in accordance with occupational health and safety requirements</p> <p>1.3 Assess casualty and identify injuries, illnesses and conditions</p>
2 Apply first aid procedures	<p>2.1 Calmly provide information to reassure casualty, adopting a communication style to match the casualty's level of consciousness</p> <p>2.2 Use available resources and equipment to make the casualty as comfortable as possible</p> <p>2.3 Respond to the casualty in a culturally aware, sensitive and respectful manner</p> <p>2.4 Determine and explain the nature of casualty's injury/condition and relevant first aid procedures to provide comfort</p> <p>2.5 Seek consent from casualty prior to applying first aid management</p> <p>2.6 Provide first aid management in accordance with established first aid principles and Australian Resuscitation Council (ARC) Guidelines and/or State/Territory regulations, legislation and policies and industry requirements</p> <p>2.7 Seek first aid assistance from others in a timely manner and as appropriate</p> <p>2.8 Correctly operate first aid equipment as required for first aid management according to manufacturer/supplier's instructions and local policies and/or procedures</p>

- 2.9 Use safe manual handling techniques as required
- 2.1 Monitor **casualty's condition** and respond in accordance with effective first aid principles and procedures
- 2.1 Finalise casualty management according to casualty's needs and first aid principles
- 3 Communicate details of the incident
 - 3.1 Request ambulance support and/or appropriate medical assistance according to relevant circumstances using relevant **communication media and equipment**
 - 3.2 Accurately convey assessment of casualty's condition and management activities to ambulance services /other emergency services/relieving personnel
 - 3.3 Prepare reports as appropriate in a timely manner, presenting all relevant facts according to established procedures
 - 3.4 Accurately record details of casualty's physical condition, changes in conditions, management and response to management in line with established procedures
 - 3.5 Maintain confidentiality of records and information in line with privacy principles and statutory and/or organisation policies
- 4 Evaluate own performance
 - 4.1 Seek feedback from **appropriate clinical expert**
 - 4.2 Recognise the possible psychological impacts on rescuers of involvement in critical incidents
 - 4.3 Participate in debriefing/evaluation as appropriate to improve future response and address individual needs

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

ARC Guidelines relating to provision of first aid as outlined

Working knowledge of:

basic principles and concepts underlying the practice of first aid

procedures for dealing with major and minor injury and illness

priorities of management in first aid when dealing with life threatening conditions

basic occupational health and safety requirements in the provision of first aid

infection control principles and procedures, including use of standard precautions

chain of survival

first Aiders' skills and limitations

Understanding of the use of an Automated External Defibrillator (AED), including when to use and when not to

First aid management of:

abdominal injuries

allergic reactions

altered and loss of consciousness

bleeding

burns - thermal, chemical, friction, electrical

cardiac arrest

casualty with no signs of life

chest pain

choking/airway obstruction

injuries: cold and crush injuries; eye and ear injuries; head, neck and spinal injuries; minor skin injuries; needle stick injuries; soft tissue injuries including sprains, strains, dislocations

envenomation - snake, spider, insect and marine bites

environmental impact such as hypothermia, hyperthermia, dehydration, heat stroke

fractures

medical conditions, including cardiac conditions, epilepsy, diabetes, asthma and other respiratory conditions

near drowning

poisoning and toxic substances (including chemical contamination)

respiratory distress

seizures

shock

stroke

substance misuse - common drugs and alcohol, including illicit drugs

Awareness of stress management techniques and available support

Social/legal issues:

duty of care

need to be culturally aware, sensitive and respectful

importance of debriefing

confidentiality

own skills and limitations

Essential skills:

Ability to:

Conduct an initial casualty assessment

Plan an appropriate first aid response in line with established first aid principles, policies and procedures, ARC Guidelines and/or State/Territory regulations, legislation and policies and industry requirements and respond appropriately to contingencies in line with own skills

Demonstrate correct procedures for performing CPR using a manikin, including standard precautions (i.e. as per unit **HLTCPR201A Perform CPR**)

Apply first aid principles

Infection control, including use of standard precautions

Follow OH&S guidelines

Demonstrate:

safe manual handling

consideration of the welfare of the casualty

ability to call an ambulance

site management to prevent further injury

Provide assistance with self-medication as per subject's own medication regime and in line with State/Territory legislation, regulations and policies and any available medical/pharmaceutical instructions

Administer medication in line with state/territory regulations, legislation and policies

Prepare a written incident report or provide information to enable preparation of an incident report

Communicate effectively and assertively in an incident

Make prompt and appropriate decisions relating to managing an incident in the workplace

Call an ambulance and/or medical assistance according to relevant circumstances and report casualty's condition

Use literacy and numeracy skills as required to read, interpret and apply guidelines and protocols

Evaluate own response and identify appropriate improvements where required

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package. The evidence guide supplements assessment requirements that apply to all units in this Training Package. Users of this evidence guide should first read the package's assessment guidelines.

Critical aspects of assessment:

Assessment must include demonstrated evidence of specified Essential Knowledge and Essential Skills identified in this competency unit

Competence should be demonstrated working individually and, where appropriate, as part of a first aid team

Consistency of performance should be demonstrated over the required range of situations relevant to the workplace or community setting

Currency of first aid knowledge and skills is to be demonstrated in line with State/Territory regulations, legislation and policies, ARC and industry guidelines

Context and resources required for assessment:

Skills in performing first aid procedures are to be assessed through demonstration, with questioning to confirm essential knowledge

For assessment purposes, demonstration of skills in CPR procedures requires using a model of the human body (resuscitation manikin) in line with Australian Resuscitation Council Guidelines

Access and equity considerations:

All workers in the health industry should be aware of access and equity issues in relation to their own area of work

All workers should develop their ability to work in a culturally diverse environment

In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people

Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Contextualisation to address specific requirements may include:

Focus on first aid management of specific types of injury

First aid provision under specific constraints or circumstances (e.g. in confined spaces, in maritime work environment or in work environment involving identified risks/hazards)

Established first aid principles include:	Preserve life Prevent illness, injury and condition(s) becoming worse Promote recovery Protect the unconscious casualty
Vital signs include:	Consciousness Breathing Circulation
A hazard is:	A source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Hazards may include:	Physical hazards Biological hazards Chemical hazards Hazards associated with manual handling
Risks may include:	Risks from equipment, machinery and substances Risks from first aid equipment Environmental risks Exposure to blood and other body substances Risk of further injury to the casualty Risks associated with the proximity of other workers and bystanders Risks from vehicles

Casualty's condition is managed for:

Abdominal injuries
Airway obstruction
Allergic reactions
Altered and loss of consciousness
Bleeding
Burns - thermal, chemical, friction, electrical
Chest pain/cardiac arrest
Injuries: cold and crush injuries; eye and ear injuries; head, neck and spinal injuries; minor skin injuries; needle stick injuries; soft tissue injuries including sprains, strains, dislocations
Near drowning
Envenomation - snake, spider, insect and marine bites
Environmental conditions such as hypothermia, hyperthermia, dehydration, heat stroke
Fractures
Medical conditions, including cardiac conditions, epilepsy, diabetes, asthma and other respiratory conditions
No signs of life
Poisoning and toxic substances (including chemical contamination)
Respiratory distress/arrest
Seizures
Shock
Stroke
Substance misuse - common drugs and alcohol, including illicit drugs.

First aid management must take into account applicable aspects of:

The setting in which first aid is provided, including:

workplace policies and procedures
industry/site specific regulations, codes etc.

OHS requirements

state and territory workplace health and safety legislative requirements

location and nature of the incident

situational risks associated with, for example, electrical and biological hazards, weather, motor vehicle accidents

location of emergency services personnel.

The use and availability of first aid equipment and resources

Infection control

Legal and social responsibilities of first aider

Resources and equipment are used appropriate to the risk to be met and may include:

AED

First aid kit

Auto-injector

Puffer/inhaler

Resuscitation mask or barrier

Spacer device

Communication media and equipment may include but are not limited to:

Telephones, including landline, mobile and satellite phones

HF/VHF radio

Flags

Flares

Two way radio

Email

Electronic equipment

Hand signals

Appropriate clinical expert may include:

Supervisor/manager

Ambulance officer/paramedic

Other medical/health worker

Documentation may include:

Injury report forms

Workplace documents as per organisation requirements

Documentation may include recording:

Time

Location

Description of injury

First aid management

Fluid intake/output, including fluid loss via:

blood

vomit

faeces

urine

Administration of medication including:

time

date

person administering

dose

Vital signs

Unit Sector(s)

MEM09002B Interpret technical drawing

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers interpreting technical drawing applying to any of the full range of engineering disciplines.
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Application of the Unit

Application of the unit	<p>Technical drawings may utilise perspective, exploded views or hidden view techniques. Drawings are provided to Australian Standard 1100 and/or Australian Standard 1102 and their equivalents from the full range of engineering disciplines.</p> <p>Standard symbols to Australian Standard 1100 and/or Australian Standard 1102 or equivalent are recognised in field of employment. Technical drawings may include symbol glossaries.</p> <p>Where any drawing, sketch, chart, diagram is only used as the technique for communication, then this unit does not apply: see Unit MEM12023A (perform engineering measurements) or Unit MEM16006A (Organise and communicate information).</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select correct technical drawing	1.1. Drawing is checked and validated against job requirements or equipment. 1.2. Drawing version is checked and validated.
2. Interpret technical drawing	2.1. Components, assemblies or objects are recognised as required. 2.2. Dimensions are identified as appropriate to field of employment. 2.3. Instructions are identified and followed as required. 2.4. Material requirements are identified as required. 2.5. Symbols are recognised in the drawing as appropriate.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- checking the drawing against job requirements/related equipment in accordance with standard operating procedures
- confirming the drawing version as being current in accordance with standard operating procedures
- where appropriate, obtaining the current version of the drawing in accordance with standard operating procedures
- reading, interpreting information on the drawing, written job instructions, specifications, standard operating procedures, charts, lists and other applicable reference documents
- checking and clarifying task related information
- undertaking numerical operations, geometry and calculations/formulae within the scope of this unit

Required knowledge

Look for evidence that confirms knowledge of:

- application of AS1100.101 in accordance with standard operating procedures
- relationship between the views contained in the drawing

REQUIRED SKILLS AND KNOWLEDGE

- objects represented in the drawing
- units of measurement used in the preparation of the drawing
- dimensions of the key features of the objects depicted in the drawing
- understanding of the instructions contained in the drawing
- the actions to be undertaken in response to those instructions
- the materials from which the object(s) are made
- any symbols used in the drawing as described in range statement
- hazard and control measures associated with interpreting technical drawings, including housekeeping
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to interpret technical drawings as described.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with interpreting technical drawings or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Interpret technical drawing

AS1100.101 is an extensive work and the candidate is not required to have complete familiarity with all its contents, the application of AS1100 would usually be in line with standard operating procedures; interpretation may require guidance particularly in respect to any geometric tolerancing

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Drawing, drafting and design
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MEM11016B Order materials

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers preparing a purchase/order list and placing the order.
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Application of the Unit

Application of the unit	<p>This unit applies to purchasing activities carried out by a person other than the purchasing officer, such as maintenance, service, stores and warehouse personnel. Approval to order limits and delegations will be included in the standard operating procedures or purchasing policy</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare purchase order/list	1.1. Purchase order/list is prepared to standard operating procedures. 1.2. Material specifications, price limitations, quantities and delivery requirements are determined from instructions, requisitions etc.
2. Purchase order	2.1. Supplier/vendor is informed of requirements and specifications according to standard operating procedures. 2.2. Supplier/vendor is followed up to achieve delivery as required. 2.3. Where appropriate, goods are directly received and checked for damage. 2.4. Records/files are completed accurately according to standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on instructions, specifications, standard operating procedures, requisitions, lists, records, files and other applicable reference documents
- preparing an order/list
- checking and clarifying order information
- entering information onto manual and electronic proformas and standard workplace forms
- accessing manual and electronic order information
- communicating with suppliers, manufacturers and other personnel
- checking for conformance to specifications
- following verbal instructions
- orally reporting routine information
- record keeping

REQUIRED SKILLS AND KNOWLEDGE**Required knowledge**

Look for evidence that confirms knowledge of:

- ordering policy (delegations, preferred suppliers etc.)
- ordering procedures
- safe work practices and procedures
- hazards and control measures associated with ordering materials

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to order materials.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with ordering materials or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Material specifications	Material specifications can be gained from manufacturers' catalogues, from the item, from a drawing
Supplier/vendor	Local, national, international, preferred supplier

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Materials handling
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MEM12023A Perform engineering measurements

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers performing measurement skills requiring straightforward use of mechanical measuring devices and associated calculations.
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Application of the Unit

Application of the unit	<p>This unit covers straightforward measurement using devices which incorporate visual indications representing units of measurement.</p> <p>It applies to the use of measuring devices in a range of manufacturing, engineering and related environments. It includes, where required, adjustment of measuring devices through simple means and typically includes zeroing or scale adjustment.</p> <p>Measurements may be expressed in metric or imperial units. All measurements are undertaken to standard operating procedures. Electrical/electronic devices used are those not requiring the connection or disconnection of circuitry.</p> <p>Work is undertaken autonomously or part of team environment, in the field, work station or workshops.</p> <p>For straightforward use of comparison or pre-set measuring devices, Unit MEM12001B (Use comparison and basic measuring devices) should be accessed.</p> <p>Band: A</p> <p>Unit Weight: 5</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select appropriate device or equipment	1.1. Measurement requirements are determined from specifications. 1.2. Appropriate device or equipment is selected according to standard operating procedures, to achieve required outcome.
2. Obtain measurements using a range of measuring devices	2.1. Correct and appropriate measuring technique is used. 2.2. Measurements are accurately obtained . 2.3. Dimensions are determined or verified using basic calculations, where required.
3. Maintain measuring devices	3.1. Routine care and storage of devices is undertaken to manufacturers' specifications or standard operating procedures. 3.2. Routine adjustments to devices are made and checked.
4. Communicate measurements as required	4.1. Measurements are accurately recorded, where required. 4.2. Freehand sketch which depicts required information is prepared, as required.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- selecting the appropriate measuring device for given measuring tasks
- using appropriate measuring technique
- reading all measurements taken accurately to the finest graduation of the selected measuring device
- handling and storing measuring devices in accordance with manufacturers' specifications or standard operating procedures
- verifying all measuring devices before use
- making, where appropriate, routine adjustments to measuring devices
- reading, interpreting and following information on written job instructions,

REQUIRED SKILLS AND KNOWLEDGE

specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents

- planning and sequencing operations
- checking and clarifying task related information
- checking for conformance to specifications
- undertaking numerical operations involving addition, subtraction, multiplication, division, fractions and decimals within the scope of this unit
- preparing drawings as required

Required knowledge

Look for evidence that confirms knowledge of:

- correct application of a range of measuring devices
- correct and appropriate measuring technique for a range of measuring devices
- addition, subtraction, multiplication, division, fractions, decimals to the scope required by this unit
- procedures for handling and storing a range of measuring devices
- procedures for adjusting and zeroing a range of measuring devices
- methods of communicating measurements by drawings, as required
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to perform engineering measurements.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing engineering measurements or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Specifications	Drawings, sketches, job instructions, schematics, diagrams, technical manuals
Range of measuring devices	Protractors, combination squares, set squares, dial indicators, thermometers, tapes, rules, micrometers, vernier-scaled measuring equipment
Basic calculations	Calculations needed to assist in determining measurements where a reading of the graduated device is not sufficient, for example subtracting one measurement from another to give a third measurement. Examples of calculations needed are addition, subtraction, multiplication, division, fractions and decimals. Calculations may be made using a calculator
Routine adjustments	Validating the device using simple zeroing or scale adjustment
Measurements	Measuring length, squareness, flatness, angle, roundness, clearances or any other measurements that can be read off analog, digital or other measuring device
Information	Dimensions, instructions, base line or datum points

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Measurement
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MEM12024A Perform computations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers estimating approximate answers to arithmetical problems, carrying out basic calculations involving percentages and proportions, and determining simple ratios and averages. The unit includes producing and interpreting simple charts and graphs.
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Application of the Unit

Application of the unit	<p>This unit applies in manufacturing, engineering or related environments. It includes the application of the four rules of algebraic expressions, extracting information from drawings, diagrams, graphs and charts and producing simple charts and graphs.</p> <p>Data may be derived from readings taken or may be computer generated. Applications can include computations associated with pressure, volume, temperature, heat, speed, power, elasticity, density, mass, force etc.</p> <p>Calculations may be performed using pen and paper or on a calculator.</p> <p>Band: A</p> <p>Unit Weight: 3</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine work requirement	1.1. Required outcomes are established from job instructions. 1.2. Data is obtained from relevant sources and interpreted correctly. 1.3. Required calculation method is determined to suit the application, including selection of relevant arithmetic operations and/or formulae. 1.4. Expected results are estimated, including rounding off, as appropriate.
2. Perform calculations	2.1. Calculation method is applied correctly. 2.2. Correct answer is obtained. 2.3. Answer is checked against estimation.
3. Produce charts and graphs from given information	3.1. Data is transposed accurately to produce charts or graphs. 3.2. Charts or graphs accurately reflect data on which they are based.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Look for evidence that confirms skills in: <ul style="list-style-type: none"> • performing calculations involving whole numbers using all four basic rules • performing calculations involving length, perimeter, area and volume • checking calculated answers for accuracy • rounding off estimated answers • expressing information presented in fractional or decimal format as a percentage • selecting appropriate formulae for the given application • substituting the correct values for each term in the relevant formulae • using appropriate mathematical operations • performing calculations involving ratios or proportions • determining required information from appropriate charts or graphs • producing simple charts or graphs from given information or observations made

REQUIRED SKILLS AND KNOWLEDGE

- selecting appropriate scales and using them in the production of charts and graphs
- marking appropriate limits clearly on the graph or chart
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning and sequencing operations
- checking and clarifying task related information
- checking for conformance to specifications
- undertaking numerical operations, geometry and calculations/formulae within the scope of this unit

Required knowledge

Look for evidence that confirms knowledge of:

- formula applicable to the determination of perimeter, area and volume of simple geometric shapes
- techniques for estimating approximate answers
- reasons for using dimensions with the same units when calculating length, perimeter, area and volume
- concepts of perimeter, area and volume
- procedures for rounding off figures when estimating approximate answers
- mixed numbers, decimals, fractions and whole numbers
- concept of percentage
- procedures to be followed in converting a decimal to a percentage
- procedures for carrying out calculations involving fractions and using each of the four basic rules
- procedures to be followed on converting a fraction to a percentage
- sources of appropriate formulae
- reasons for ensuring that the units of each term are consistent with the formulae selected
- procedures for converting given units to those required for use in formulae
- concepts of ratio and proportion
- given ratios and proportions can be expressed in terms of whole numbers, fractions and decimal fractions
- scales applicable to the axes of the graphs or charts
- three types of charts and/or graphs used in the individual's field of work
- where appropriate, upper and lower limits of acceptability applicable to data entered on a graph or chart
- where appropriate, the trends indicated by the slope or gradient of a graph
- where appropriate, the action to be taken when given trends occur or set limits are approached on graphs or charts
- procedures for drawing 'lines of best fit'

REQUIRED SKILLS AND KNOWLEDGE

- the trends indicated by the graphs or charts drawn
- hazards and control measures associated with performing computations, including housekeeping
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to perform computations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing computations or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Relevant sources	Charts, graphs, diagrams, measurement data, reference manuals and specifications
Application	Applications can include computations associated with pressure, volume, temperature, heat, speed, power, elasticity, density, mass, force etc.
Arithmetic operations	<ul style="list-style-type: none"> • Application of subtraction, addition, multiplication and division • Manipulation of decimals, fractions and mixed numbers and whole numbers • Determining of percentages • Performing of algebraic expressions • Calculation of proportions and ratios
Charts and graphs	Simple histograms, control charts, pie charts etc.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Co-requisite units		

Competency field

Competency field	Measurement
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MEM14005A Plan a complete activity

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers planning activities which, whilst following established procedures, may require a response and modification of procedures or choice of different procedures to deal with unforeseen developments.
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Application of the Unit

Application of the unit	<p>The unit covers the development of plans for individual complete activities and may include the use of planning techniques and tools.</p> <p>The activity may require prioritising of the individual plan components to facilitate the meeting of the objectives. Examples of activities to be planned may include: fault diagnosis and repair of an item of equipment, a modification of an established sequence of assembly tasks. However the activities may require a response and modification of procedures or a choice of different procedures to deal with unforeseen developments.</p> <p>Activities are normally performed by the individual undertaking the planned activity, and associated reports are completed as required. Planning will be related to familiar work tasks and environments and be performed to standard operating procedures.</p> <p>Where more extensive reporting requiring research and forming conclusions is required, refer to Unit 16.14 (Report technical information).</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify activity requirements	1.1. Activity outcomes and objectives are identified and clarified with appropriate persons. 1.2. Activity requirements, including resources, overall timeframe, quality requirements and criteria for acceptable completion are identified and clarified. 1.3. Relevant specifications and procedures are obtained and clarified.
2. Plan process to complete activity	2.1. The individual components of the activity are identified and prioritised. 2.2. Planning tools and techniques are selected and used according to the needs of the activity. 2.3. The plan is checked for accuracy and conformance to instructions and requirements.
3. Modify plan	3.1. The plan is referred to and modified as necessary to overcome unforeseen difficulties or developments that occur as work progresses. 3.2. The results of the activity are reviewed against the plan, and possible future improvements to plan are identified.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- obtaining, reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawing and other applicable reference documents
- preparing a plan including sequential steps that will enable the activity to be completed
- modifying the plan where appropriate, to take account of difficulties or developments that occur while following the prepared plan
- planning and sequencing activities
- checking and clarifying task-related information

REQUIRED SKILLS AND KNOWLEDGE

- checking for conformance to specifications
- using numerical operations, geometry and calculations/formulae within the scope of this unit
- using planning techniques such as scheduling, time management, brainstorming, setting of goals and defined outcomes, prioritising, review and evaluation strategies

Required knowledge

Look for evidence that confirms knowledge of:

- tasks to be performed
- person/s who can clarify the objectives, requirements and specifications
- specifications relevant to the tasks to be performed
- outcomes to be achieved
- timeframe for activity completion
- quality requirements of the product or service
- priority of each step in the plan
- reasons for the relative priority of each step
- modifications to the plan to overcome a range of unforeseen situations
- hazards and control measures associated with planning the complete activity, including housekeeping
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to plan a complete activity.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with planning a complete activity or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Requirements

- Formal or informal information about the task required, such as:
 - timeframe
 - quality requirements
 - outcome and performance requirements
 - job history
 - checks and tests
 - special reporting requirements
 - tools and equipment
 - materials and parts
 - reference documents
- Requirements and instructions are supplied verbally or in written form such as on job sheets. Instructions are carried out in accordance with established procedures

Specifications

Technical task related information conveyed verbally or as found in:

- task lists
- instructions
- manufacturer manuals
- diagrams and schematics
- technical drawings and sketches
- parts lists
- computer records

Planning techniques and tools

Scheduling, time management, brainstorming, setting goals and defined outcomes, prioritising, review and evaluation strategies

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Planning
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MEM18001C Use hand tools

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using a range of hand tools for a variety of general engineering applications.
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Application of the Unit

Application of the unit	<p>Applications may include hand tools used for adjusting, dismantling, assembling and finishing of items or components, and the finishing, cutting, scraping of metallic and non-metallic material to size and shape. This includes simple tapping and threading and routine maintenance of hand tools.</p> <p>This unit should not be selected if the hand tool is dedicated to a single operation or machine and if only a machine specific/customised tool is used.</p> <p>When using hand held power tools or power tools used for hand held operations, refer to Unit MEM18002B (Use power tools/hand held operations).</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use hand tools	1.1. Hand tools are selected appropriate to the task requirements. 1.2. Hand tools are used to produce desired outcomes to job specifications which may include finish, tension, size or shape. 1.3. All safety requirements are adhered to before, during and after use. 1.4. Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use. 1.5. Routine maintenance of tools, including hand sharpening is undertaken according to standard operational procedures, principles and techniques. 1.6. Hand tools are stored safely in appropriate location according to standard operational procedures and manufacturers' recommendations.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Look for evidence that confirms skills in: <ul style="list-style-type: none"> • reading and following information on standard operating procedures • following verbal instructions • selecting hand tools appropriate to the task • using hand tools safely • identifying hand tool defects and marking for repair • maintaining/sharpening hand tools using appropriate techniques • storing hand tools in accordance with manufacturers'/standard operating procedures
Required knowledge
Look for evidence that confirms knowledge of: <ul style="list-style-type: none"> • applications of different hand tools in a general engineering context • common faults and/or defects in hand tools

REQUIRED SKILLS AND KNOWLEDGE

- procedures for marking unsafe or faulty tools for repair
- routine maintenance requirements for a range of hand tools
- storage location and procedures for a range of hand tools
- hazards and control measures associated with using hand tools
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	<p>A person who demonstrates competency in this unit must be able to use hand tools for a range of general engineering applications.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using hand tools or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Hand tools	Hacksaws, hammers, punches, screwdrivers, sockets, wrenches, scrapers, chisels, gouges, wood planes and files of all cross-sectional shapes and types
Job specifications	Finish, tension, size or shape etc.
Routine maintenance	Cleaning, lubricating, tightening, simple tool repairs, hand sharpening and adjustments using engineering principles, tools, equipment and procedures

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM18002B Use power tools/hand held operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using a range of hand held power tools and fixed power tools for hand held operations for a variety of general engineering applications.
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Application of the Unit

Application of the unit	<p>This unit applies to loosening and fastening items or components and shaping, finishing, cutting, grinding metallic and non-metallic materials and/or tool bits to size and shape.</p> <p>This unit should not be selected if the power tools used are dedicated to an operation or machine, e.g. nut-runner, air drill, power driver, etc.</p> <p>For using hand tools, see Unit MEM18001C (Use hand tools).</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use power tools	1.1. Power tools are selected appropriate to the task requirements. 1.2. Power tools are used for a determined sequence of operations - which may include clamping, alignment and adjustment to produce desired outcomes - to job specifications which may include finish, size or shape. 1.3. All safety requirements are adhered to before, during and after use. 1.4. Unsafe or faulty tools are identified and marked for repair before, during and after use according to designated procedures. 1.5. Operational maintenance of tools, including hand sharpening, is undertaken according to standard workplace procedures, principles and techniques. 1.6. Power tools are stored safely in appropriate location according to standard workshop procedures and manufacturers' recommendations.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting power tools appropriate to the task
- using power tools safely
- using clamping/securing devices
- identifying power tool defects
- maintaining power tools using appropriate techniques
- sharpening tools/tool bits within the scope of this unit
- storing power tools according to manufacturers'/ standard operating procedures.

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

Look for evidence that confirms knowledge of:

- application of different power tools
- clamping/securing methods
- adjustments/alignments to a range of power tools
- common faults and/or defects in power tools
- procedures for marking unsafe or faulty power tools for repair
- routine maintenance requirements of a range of power tools
- tool sharpening techniques for a range of power tools
- storage location and procedures of a range of power tools
- hazards/control measures associated with power tools
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to use power tools/hand held operations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using power tools/hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning should not require language, literacy and numeracy skills beyond those required in this unit. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Power tools	Electric or pneumatic/hydraulic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders
Clamping	Multigrips, vices, jigs and fixtures, clamps etc.
Job specifications	Finish, size or shape etc.
Operational maintenance	Hand sharpening, cleaning, lubricating, tightening Simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Maintenance and diagnostics
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MEM18003C Use tools for precision work

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using tools to manually produce work to precise dimensions and or finishes.
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Application of the Unit

Application of the unit	<p>Work is undertaken autonomously or in a team environment, using predetermined standards of quality, safety and workshop procedures.</p> <p>This unit involves using a variety of tools, instruments and power equipment to perform precision tasks on a range of metallic and non-metallic materials.</p> <p>As a guide, the types of precision work covered by this unit could include:</p> <ul style="list-style-type: none"> • scraping machine beds to precise tolerances • broaching a tapered keyway • hand reaming the bore of a spigot or bush to a positive transition fit with shaft • core drilling (finishing) a blind locating hole to receive a mating pin • lapping a mechanical seal to fine finish • filing complex angles and mating edges • precision grinding using flex-drive attachment or similar <p>Inspection and preventative maintenance of tools and equipment involves the visual checking of leads and connections, sharpening of cutting equipment and the repair of associated tools.</p> <p>Where precision measurement is required, Unit MEM12003B (Perform precision mechanical measurement) should also be selected.</p> <p>Where precision marking out is required, Unit MEM12006C (Mark off/out [general engineering]) should also be selected.</p> <p>Where specifications are interpreted from engineering drawings, detailed/technical sketches and associated documents, Unit MEM09002B (Interpret technical drawing) should also be selected.</p>
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	Band: A Unit Weight: 4
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine job requirements	<p>1.1.Task requirements and specifications are determined and clarified with appropriate persons.</p> <p>1.2.Processes/techniques are selected appropriate to task, specifications and material.</p>
2. Prepare tools and tooling to produce precision outcome	<p>2.1.Tools, accessories and consumables are selected appropriate to task, specifications and material.</p> <p>2.2.Where applicable, cutting tool modifications required to produce outcome are determined using engineering principles.</p> <p>2.3.Tools/tooling are prepared and modified as required.</p>
3. Use tools to produce work to precise specifications	<p>3.1.The work area is prepared and made safe.</p> <p>3.2.The work piece is prepared and secured using appropriate method for selected operation/s.</p> <p>3.3.Tools are used according to acceptable engineering principles, methods, applications and procedures to produce specified outcome to the required accuracy.</p> <p>3.4.Tools and equipment are inspected for safe and proper working order before, during and after use.</p> <p>3.5.Unserviceable tools/equipment are identified, repaired where appropriate, or marked for repair and/or disposal, according to prescribed procedure.</p> <p>3.6.Tools are stored and maintained to ensure serviceability.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- obtaining and interpreting relevant drawings, specifications, instructions etc.
- preparing and making safe the work area(s) prior to the work being carried out
- using appropriate tools to produce the specified outcomes
- checking tools and equipment for safe and proper working order before, during and after use

REQUIRED SKILLS AND KNOWLEDGE

- where appropriate, marking unsafe or faulty tools and equipment for repair
- where appropriate, repairing/maintaining unsafe or faulty tools
- checking condition of all tools and equipment for conformance to specifications and safe and proper operation prior to storage
- safely storing all tools and equipment in the appropriate location

Required knowledge

Look for evidence that confirms knowledge of:

- work to be undertaken
- specifications to be achieved
- appropriate tools, processes and equipment required to carry out the work to the required specifications
- reasons for selecting the chosen tools, processes and equipment
- hazards and control measures associated with using the selected tools, processes and equipment, including housekeeping
- safety procedures to be followed to ensure the safety of the individual and other personnel
- procedures for using the selected tools
- engineering principles to be applied during the use of the tools
- manufacturers' specifications of the tools and equipment selected
- safe and proper function of tools and equipment selected
- procedures for checking tools and equipment for correct and safe operation
- common faults and/or defects in tools and equipment used/selected
- procedures for marking unsafe or faulty tools and equipment for repair
- repairs/operational maintenance that can be made to the tools and equipment used/selected
- procedures for repairing/maintaining the tools and equipment used/selected
- procedures for checking tools and equipment prior to storage
- storage location of the tools and equipment used/selected
- procedures for storing tools and equipment used/selected

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to use tools to fashion or shape work to high levels of precision for dimension and or finish to specifications. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using tools for precision work or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

EVIDENCE GUIDE

Guidance information for assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Processes

- Hand tools and hand held power tools are used to fashion or shape work to high levels of precision for dimension and or finish to specifications
- Engineering techniques, methods and procedures may include cutting out, drilling, fitting, filing, reaming, lapping, broaching, burnishing, scraping, polishing, hand held grinding, chiselling

Precision outcomes

Specified tolerances, allowances, fits, finishes, alignments

Tools

Any tools or equipment required to achieve precision outcomes

Tool modifications

Tool shape, rake angle and clearance angles

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM18006C Repair and fit engineering components

Modification History

Not Applicable

Unit Descriptor

<p>Unit descriptor</p>	<p>This unit of competency covers mechanical repair and fitting trade skills including fault finding, repair of faulty components, manufacturing of new parts/components, and fitting mechanical engineering components into assemblies or sub-assemblies to specified measurements and tolerances and consistency with manufacturer's specification.</p> <p>Repair and fitting of engineering components is undertaken using mechanical engineering and maintenance principles, designated procedures, correct and appropriate tools/equipment, and safe working practices.</p>
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Application of the Unit

<p>Application of the unit</p>	<p>This unit of competency applies to repair and fitting work undertaken by a tradesperson in a mechanical maintenance, service or workshop environment. Work is undertaken autonomously or as part of a team using predetermined standards of quality, safety and workshop procedures. Skills covered include determining the need for repair or replacement of parts and assemblies, and undertaking of repair, replacement, assembly and final fitting of items, sub-assemblies and assemblies. All specifications are interpreted from engineering drawings, detailed/technical sketches and associated data sheets. The unit includes the use of appropriate workshop practices. New components are manufactured as required to specifications.</p> <p>This unit has been developed for Engineering Tradesperson - Mechanical apprenticeship training and the recognition of trade level skills in repair and fitting of engineering components. Skills covered by this unit are generally applied in occupational and work situations associated with trade level fitting and machining work. It may also apply to other mechanical trade occupational areas requiring high level repair and fit of engineering component skills.</p> <p>This unit has application in the MEM30205 Certificate III in Engineering - Mechanical qualification and other qualifications requiring a trade level of repair and fit skills.</p>
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	<p>This unit does not address machining competencies and welding, if these are required, the appropriate units should also be accessed. Where additional or higher marking out skills are required, refer to MEM12006C Mark off/out (general engineering). The knowledge and skills associated with the installation, removal, repair or replacement of mechanical seals is covered by MEM18012B Perform installation and removal of mechanical seals. For high pressure fluid power seals, refer to MEM18020B Maintain hydraulic system components.</p> <p>Band: A</p> <p>Unit Weight: 6</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM18003C	Use tools for precision work
	MEM18055B	Dismantle, replace and assemble engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify scope of repair and/or fit required	1.1. Operational specifications for components are obtained from appropriate source and are interpreted and understood 1.2. Operation and condition of components are assessed against specifications 1.3. Faulty/worn components are identified 1.4. Causes of faults are determined using appropriate engineering principles, techniques, procedures, tools and equipment 1.5. Repair, replacement, adjustment or manufacture requirements are determined
2. Repair/replace faulty components	2.1. Where applicable, appropriate method of repair is determined 2.2. Where applicable, faulty components are repaired or adjusted to conform to specifications 2.3. Where applicable, replacement parts are selected from manufacturers' catalogues and assessed against specifications
3. Manufacture parts/components	3.1. Parts/component specifications are determined from appropriate source 3.2. Materials are selected to meet specification requirements 3.3. New components are produced in conformance to specifications using appropriate workshop practices 3.4. Completed components are inspected for compliance with dimensions 3.5. Where appropriate, component parts are marked for identification prior to assembly
4. Fit engineering components into assemblies or sub-assemblies	4.1. Fitting requirements and sequence of assembly are determined 4.2. Appropriate fitting principles and techniques are applied in the preparation and assembly of component parts using fastening equipment and methods which ensures conformance to specifications, operational performance, quality and safety 4.3. Using acceptable engineering practices, correct gland packing, jointing/gasket materials are selected and applied correctly in conformance to specifications and operational requirements

ELEMENT	PERFORMANCE CRITERIA
	<p>4.4. Correct lubrication requirements are determined by appropriate means and attended to where applicable</p> <p>4.5. Final adjustments are performed on component assembly to meet operational specifications using acceptable engineering principles, fitting techniques and procedures</p>
5. Check operation of repaired components/unit	<p>5.1. Components/unit are checked under operational conditions for compliance to operational specifications using acceptable engineering principles to standard operating procedures</p> <p>5.2. Out of specification modification/alterations are approved by appropriate authority and are recorded and documented to standard operating procedures</p> <p>5.3. Final component assembly is commissioned and returned to service according to standard operating procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- obtaining operational specifications for the components
- assessing operation against specification and identifying faults
- checking components visually and dimensionally against the operational specifications using work site procedures
- checking repaired components visually and dimensionally for conformance to specifications
- adjusting components to achieve conformance to specifications where appropriate
- selecting replacement parts which conform to specifications
- preparing and assembling components using appropriate fitting techniques and principles
- where appropriate, applying gland packing, jointing or gasket materials, using acceptable engineering practices
- applying appropriate lubricants to the assembly using acceptable engineering practices, where required

REQUIRED SKILLS AND KNOWLEDGE

- checking components for conformance to specification
- where required, adjusting components to achieve conformance to specifications
- where required, recording any approved modifications/alterations to work site procedures
- inspecting the final assembly and checking conformance to operational specifications
- where appropriate, returning the final assembly to service in accordance with work site procedures
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- undertaking numerical operations, geometry and calculations/formulae within the scope of this unit

Required knowledge

Required knowledge includes:

- tools and equipment to be used to dismantle the components
- consequences of having components that do not comply with operational specifications
- types of adjustment applicable to the components being repaired/fitted
- appropriate methods of repair
- features and/or dimensions upon which replacement parts are to be selected
- process of identifying replacement parts from third party suppliers' catalogues
- material properties required
- manufacturing operations to be used in the production of new components
- sequence of operations to be used in the production of new components
- fitting requirements for assembling components
- appropriate sequence of assembly tasks
- purpose of using gland packing, jointing or gasket materials
- reasons for selecting particular jointing or packing materials
- applications of different types of lubricants
- consequences of using inappropriate or no lubricant
- the need to have approval for out of specification modifications
- reasons for documenting out of specification modifications
- return to service procedures
- consequences of not following work site return to service procedures
- hazard and control measures associated with repairing and fitting engineering components, including housekeeping
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to repair and fit engineering components to specifications in both workshop and site environments. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently apply the skills covered in this unit of competency in new and different situations and contexts. Critical aspects of assessment and evidence include:</p> <ul style="list-style-type: none"> • obtaining manufacturer's and enterprise specifications for equipment, materials and components • checking components visually and dimensionally in the workplace including tolerances, allowances, clearances and limits • repairing and fitting components and assemblies in a workshop environment to required specifications • repairing and fitting components and assemblies in a production or other work site environment • manufacturing and fitting components including commissioning and return to service checking of component and equipment through first off production or other recognised return to service checking procedure • procedures for out of specification modification/alterations.
<p>Context of and specific resources for assessment</p>	<p>This unit has been developed to support training in and recognition of trade level competency repair and fit of engineering components as applied to a trade level fitting and machining work environment. Assessment should emphasise a workplace context and procedures found in the candidate's workplace.</p> <p>The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p>

EVIDENCE GUIDE	
Method of assessment	<p>Typically, persons engaged in Engineering Tradesperson - Mechanical work are required to apply their repair and fit skills and techniques across a range of jobs and specifications.</p> <p>A single assessment event is not appropriate. On the job assessment should be included as part of the assessment process wherever possible. Where assessment occurs off the job, judgement must consider evidence of the candidate's performance in a productive work environment that includes a sufficient range of appropriate tasks and materials to cover the scope of application for this unit.</p> <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials</p>
Guidance information for assessment	<p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with repair and fit of engineering components or other units requiring the exercise of the skills and knowledge covered by this unit.</p> <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>

Range Statement

RANGE STATEMENT

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Manufacturers' catalogues	Manufacturers' catalogues may include any appropriate manufacturers' catalogues that contain replacement parts that conform with specifications and operational requirements
Appropriate workshop practices	<p>Appropriate workshop practices may include:</p> <ul style="list-style-type: none"> • drilling • scraping • filing • reaming • tapping • threading
Fitting principles and techniques	<p>Fitting principles and techniques may include:</p> <ul style="list-style-type: none"> • limits of tolerance • allowances and clearances • effects of wear, stress, temperature • types of fits - clearance transition interference • press fitting methods • force fits • shrink and freeze (expansion) fits • keyed fits • taper fits • lateral and radial forces • backlash • configuration and mating of parts • applied use of precision tools and measuring equipment • engineering components - shafts, single and multi-throw crankshafts, cams and journals, bearings and bearing surfaces, keys • squareness, roundness, concentricity, flatness, straightness, surface finish and angular correctness • datum and centrelines

RANGE STATEMENT

- | | |
|--|----------------------------------|
| | • tapping, reaming and broaching |
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Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM18007B Maintain and repair mechanical drives and mechanical transmission assemblies

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers diagnosing faults and repairing drives and transmission assemblies, and undertaking final adjustment and commissioning.
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Application of the Unit

Application of the unit	<p>This unit applies to diagnostics and maintenance, repair, adjustment and commissioning of mechanical drives and mechanical transmission assemblies.</p> <p>This unit should not be selected where either Unit MEM18042C (Diagnose and rectify manual transmissions), or Unit MEM18043C (Diagnose and rectify automatic transmissions) or Unit MEM18044C (Diagnose and rectify drive line and final drives) are also selected.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM18003C	Use tools for precision work
	MEM18006C	Repair and fit engineering components
	MEM18009B	Perform levelling and alignment of machines and engineering components
	MEM18055B	Dismantle, replace and assemble engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Undertake maintenance checks of mechanical drives and mechanical transmission components</p>	<p>1.1. Principles of mechanical drives and mechanical transmission components are understood.</p> <p>1.2. The function of the main parts of the designated mechanical drive/transmission assembly is understood.</p> <p>1.3. Appropriate maintenance principles, techniques, tools and equipment, mechanical drive/transmission components are used to check for wear, distortion, tensions, misalignment, fatigue, lubrication, slackness, tooth wear, breakages and other related malfunctions.</p> <p>1.4. Assembly requiring further diagnosis, repair or adjustment is identified and findings are documented.</p>
<p>2. Adjust mechanical drives and transmission assemblies</p>	<p>2.1. Adjustment requirements are determined.</p> <p>2.2. A suitable adjustment method is determined from manufacturers' instruction sheets, standard workshop manuals/procedures or other means.</p> <p>2.3. Adjustment tools and equipment are selected according to the type of assembly being serviced.</p> <p>2.4. Appropriate maintenance principles, techniques, tools and equipment are used, and drives/transmission components are tensioned, aligned balanced or adjusted to manufacturers'/site specifications according to safe workshop practices.</p> <p>2.5. Drive/transmission assembly is checked after adjustment for correct operation or identified for further diagnosis or repair.</p> <p>2.6. Service report is completed.</p> <p>2.7. Further diagnosis or repair requirements are actioned.</p>
<p>3. Diagnose faults</p>	<p>3.1. Service reports are read and visual and sensory inspection of the drive/transmission assembly is undertaken.</p> <p>3.2. Given manufacturers' specifications, and where applicable, diagnostic equipment drive/transmission assembly is tested using sound maintenance principles and procedures.</p> <p>3.3. Faults are localised at the component level and identified for repair or replacement.</p> <p>3.4. Fault causes are analysed and preventative measures</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>to avoid re-occurrence are developed, documented and actioned by appropriate means.</p> <p>3.5. Requirements for repair or replacement are actioned.</p>
<p>4. Repair mechanical drives/transmission assemblies</p>	<p>4.1. Service reports are read and visual and sensory inspection of the drive/transmission assembly is undertaken.</p> <p>4.2. Task requirements are ascertained.</p> <p>4.3. Tools and equipment are selected according to the type of assembly being serviced.</p> <p>4.4. Mechanical drive/transmission assembly is dismantled using appropriate maintenance principles, techniques, tools, equipment and safe workshop practices.</p> <p>4.5. Serviceable items are repaired using appropriate maintenance procedures according to manufacturers' specifications and standard workshop practices.</p> <p>4.6. Standard replaceable items are selected and obtained using manufacturers' catalogues, spare parts lists, engineering specifications.</p> <p>4.7. Component parts are refitted to mechanical drive/transmission assembly using sound maintenance principles, techniques, tools and equipment in accordance with manufacturers'/site specifications.</p>
<p>5. Final adjustment and commissioning</p>	<p>5.1. Using applicable maintenance principles and procedures, drive/transmission components are tensioned, balanced, aligned or adjusted to suit specifications and operational requirements.</p> <p>5.2. Drive/transmission assembly is checked after adjustment and operational performance is analysed.</p> <p>5.3. Assembly is commissioned to specifications.</p> <p>5.4. Service report is completed.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills

Look for evidence that confirms skills in:

- locating, reading and interpreting information on written job instructions, specifications, manufacturers' instructions, standard workshop manuals/procedures, drawings, charts, lists and other reference documentation
- checking and clarifying task-related information
- interpreting manufacturers' catalogues or engineering specifications
- undertaking diagnostic and testing
- analysing operational performance
- planning and sequencing operations
- completing proformas, standard workplace forms and short reports using relevant terminology
- checking for conformance to specifications
- measuring components to specified tolerances
- undertaking calculations for determining cutting parameters and checking tolerances
- undertaking numerical operations and engineering calculations/formulae within the scope of this unit
- following verbal instructions
- orally reporting information

Required knowledge

Look for evidence that confirms knowledge of:

- uses and characteristics of lubricants
- principles of operation of a range of mechanical drives and transmissions
- techniques, tools and equipment to measure components
- common malfunctions in mechanical drives, transmissions and their components
- procedures for checking and adjusting mechanical drives, transmissions and their components
- preventative measures that can be undertaken to avoid recurrence of the fault/failure
- any applicable industry standards, national/Australian standards, NOHSC guidelines, State/Territory regulatory codes of practice/standards
- use and application of personal protective equipment
- safe work practices and procedures
- hazards and control measures associated with maintaining and repairing mechanical drives and mechanical transmission assemblies

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to diagnose faults and repair drives and transmission assemblies and undertake final adjustment and commissioning. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with maintaining/repairing mechanical drives and mechanical transmission assemblies or other units requiring the exercise of the skills and knowledge covered by this unit.

Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes,

EVIDENCE GUIDE	
	standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Mechanical drive/transmission	Worm and worm wheel, line shafts, plumber blocks, pulleys, sprockets, belts, taper bush assemblies, roller chains, chain drives, mechanical and hydraulic couplings, compression couplings, disc type flexible couplings, spider type, chain couplings, universal joints, bevel gearing, rack and pinion gearing, dog toothed clutches, cone type clutches, expanding shoe type clutches, friction/plate type clutches, centrifugal clutches, toggle action linkages, magnetic clutches, sprag clutches, band type brakes and other associated drive components.
Service reports	According to workplace procedures
Sensory inspection	Vibration, heat, smell, sound, sight
Commissioned	Confirming readiness for use or return to service

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM18009B Perform levelling and alignment of machines and engineering components

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers undertaking levelling and alignment measurements/readings and performing levelling and/or alignment tasks.
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Application of the Unit

Application of the unit	<p>This unit applies to the setting up and use of alignment measuring devices and precision levelling devices. All adjustments are performed according to designated procedures in conformance to specifications.</p> <p>The application of appropriate engineering principles, techniques, tools and equipment is integral to all tasks relating to the levelling of equipment and the alignment of component parts.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM18003C	Use tools for precision work
	MEM18006C	Repair and fit engineering components
	MEM18055B	Dismantle, replace and assemble engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Undertake levelling and alignment measurements/readings	1.1.Principles of levelling and alignment are understood and utilised. 1.2.Task requirements are determined by inspection of equipment to be levelled and/or components to be aligned. 1.3.The correct appropriate levelling and/or alignment procedure is selected. 1.4.Correct and appropriate levelling or alignment devices/equipment are selected and set up to standard operating procedures or manufacturers' recommendation. 1.5.Measurements/readings are taken accurately and recorded correctly to standard operating procedures.
2. Perform levelling and/or alignment tasks	2.1.Correct and appropriate engineering principles, techniques, tools and equipment are selected. 2.2.Levelling realignment calculations are performed using correct and appropriate method for levelling/alignment application. 2.3.Equipment is levelled to specifications using correct and appropriate techniques 2.4.Levelling and alignment task is completed to specifications.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Look for evidence that confirms skills in: <ul style="list-style-type: none"> • reading, interpreting and following information on standard operating procedures, manufacturer recommendations, drawings and other applicable reference documents • taking levelling and alignment measurements/readings • performing levelling/alignment calculations • setting up levelling/aligning equipment

REQUIRED SKILLS AND KNOWLEDGE

- | |
|---|
| <ul style="list-style-type: none">• completing levelling and/or alignment tasks |
|---|

Required knowledge

Look for evidence that confirms knowledge of:

- principles of levelling and alignment
- numerical operations, geometry and calculations/formulae for levelling and alignment
- effects on equipment performance and life of non-level or out of alignment components
- techniques, tools, equipment and procedures to carry out the levelling and/or alignment
- reasons for selecting tools, techniques and equipment
- hazards and control measures associated with levelling and alignment
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to level and align machines and engineering components. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with levelling and aligning machines and engineering components or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

EVIDENCE GUIDE	
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Levelling and/or alignment procedures	Face and rim, reverse indicator, use of jacking bolts and shimming material, straight edge and feeler gauge, use of levelling equipment, etc.
Levelling and alignment devices/equipment	Precision levels, spirit levels, line levels, optical levels, electronic levels, laser levels, dial indicators, special type dial indicator fixtures, magnetic bases, feeler gauges, bench centres, vee blocks, plumb line, folding wedges, straight edges, shimpack materials, dumpy levels etc.
Level or realignment calculation	Performed using the most appropriate means for the type of application being performed
Specifications	Obtained from engineering drawings, data sheets or manufacturers' specifications

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM18010C Perform equipment condition monitoring and recording

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers undertaking condition monitoring.
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Application of the Unit

Application of the unit	<p>This unit applies where specialist monitoring activities are undertaken as part of a preventive maintenance or total productive maintenance plan or program. Work is undertaken autonomously or as part of a team environment. Monitoring is undertaken in workshop, laboratory or in situ environment; readings are undertaken to the accuracy of monitoring equipment limitations or to site specifications where applicable. Results are recorded/plotted to predetermined procedure and technique. All work and work procedures are undertaken to standard operating procedures and/or equipment manufacturers' recommendations. All work and work practices are undertaken to regulatory or legislative requirements.</p> <p>Where only routine maintenance checking and diagnostic skills are applied, other appropriate units should be accessed.</p> <p>This unit has dual status and is to be regarded as both a Specialisation band A unit and Specialisation band B unit for progression to C5 (AQF level V).</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM18055B	Dismantle, replace and assemble engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Undertake condition monitoring	1.1. Principles and methods of equipment condition monitoring are understood and applied 1.2. Appropriate condition monitoring technique is selected to achieve required outcomes. 1.3. Checks are undertaken correctly, safely and to standard operating procedures. 1.4. Results are plotted and deviations from specification are reported to appropriate authority and recorded.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
<p>This section describes the skills and knowledge required for this unit.</p>
<p>Required skills</p>
<p>Look for evidence that confirms skills in:</p> <ul style="list-style-type: none"> • reading, interpreting and following information on job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents • planning and sequencing operations • checking and clarifying task-related information • applying correct principles for monitoring • selecting appropriate technique for the situation • following standard operating procedures • recording results and preparing and submitting deviation reports
<p>Required knowledge</p>
<p>Look for evidence that confirms knowledge of:</p> <ul style="list-style-type: none"> • the application of principles and methods for a variety of situations • appropriate records for a variety of situations • hazards and control measures associated with equipment monitoring, including housekeeping • use and application of personal protective equipment • safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to perform equipment condition monitoring and recording. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with equipment condition monitoring and recording or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

EVIDENCE GUIDE

Guidance information for assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Technique may include	Built-in systems (software and site displays), vibration monitors, infra-red and ultraviolet non-destructive testing
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Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Maintenance and diagnostics
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MEM18011C Shut down and isolate machines/equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers isolating and shutting down machines and equipment.
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Application of the Unit

Application of the unit	<p>This unit applies to situations that require extensive system knowledge that exclude the straightforward starting/stopping of machinery/equipment through the use of simple switching, including use of emergency switches. Shut-down/isolation is undertaken autonomously or as part of teamwork.</p> <p>This unit has dual status and is to be regarded as both a specialisation band A unit and Specialisation band B unit for progression to C7 (AQF level IV).</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Shut down machine/equipment	1.1. Machine/equipment operational function is determined and understood. 1.2. Shut-down sequence is undertaken safely and to standard operating procedures. 1.3. Machine/equipment is depressurised/emptied/de-energised/bled to standard operating procedures. 1.4. Safe shut-down of machine/equipment is verified. 1.5. Safety/security lock-off devices and signage are installed to standard operating procedures. 1.6. Machine/equipment is left in clean and safe state.
2. Isolate machine/equipment	2.1. Machine/equipment operational function is determined and understood. 2.2. Isolation methods and points are recognised and identified. 2.3. Isolation is undertaken safely and to standard operating procedures. 2.4. Safe isolation of machine/equipment is verified. 2.5. Safety/security lock-off devices and signage are installed to standard operating procedure. 2.6. Machine/equipment is left in clean and safe state.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on written job instructions, specifications and other applicable reference documents
- checking and clarifying task-related information
- entering information onto proformas and standard workplace forms
- shutting down machine/equipment
- purging/de-energising equipment
- installing safety/security lock-off devices and signage\

REQUIRED SKILLS AND KNOWLEDGE**Required knowledge**

Look for evidence that confirms knowledge of:

- the operational function of the machine/equipment
- the shut-down sequence
- the procedures for shutting down and isolating the machine/equipment
- safety precautions for shutting down and isolating the machine/equipment
- procedures for purging/de-energising the machine/equipment and reasons for doing so
- procedures for verifying machine/equipment shut-down and isolation and reasons for verifying
- the safety/security lock-off devices and signage to be installed
- the reasons and procedures for installing lock-off devices and signage
- the reasons for ensuring the machine/equipment is left in a clean, safe state
- hazards and control measures
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	A person who demonstrates competency in this unit must be able to shut down and isolate machines/equipment.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with shutting down and isolating machines/equipment or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Shut down/isolate	Shut down/isolation means and includes isolation of mechanical, electrical drives, pipework (pressure) rotating equipment etc. utilising electrical lock-off isolators, mechanical and power driven valves etc. in accordance with standard operating instructions. Relevant regulations, Australian standards and legislative requirements governing isolation and shut-down must be complied with
Machine/equipment	Manual, semi automatic and automatic machines of a stand-alone, continuous production or process nature.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Maintenance and diagnostics
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MEM18055B Dismantle, replace and assemble engineering components

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers dismantling and identifying faulty components, selecting replacements, and assembling engineering components into assemblies or sub-assemblies in accordance with standard operating procedures.
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Application of the Unit

Application of the unit	<p>This unit involves dismantling, checking, replacing and assembling engineering components in accordance with standard operating procedures.</p> <p>All specifications are interpreted from manufacturers' manuals, engineering drawings, detailed/technical sketches and associated data sheets. Tasks are undertaken utilising engineering principles, designated procedures, appropriate tools, equipment and safe workshop practices.</p> <p>Work is undertaken autonomously or in a team environment using predetermined standards of quality, safety and workshop procedures.</p> <p>Where fitting techniques and principles are required to assess component condition, and/or modify components to achieve precision fits, unit MEM18006C (Repair and fit engineering components) should also be selected.</p> <p>Where precision mechanical measurement is required, then Unit MEM12003B (Perform precision mechanical measurement) should also be selected.</p> <p>Band: A</p> <p>Unit Weight: 3</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Dismantle engineering components	1.1. Engineering components are inspected and task requirements are analysed. 1.2. Appropriate tools and equipment are selected and component/s are prepared for dismantling. 1.3. Component is dismantled using standard operating procedures, tools and equipment. 1.4. Engineering components are clearly marked to aid reassembly.
2. Identify faulty components	2.1. Specifications for components are obtained from appropriate source and are interpreted and understood. 2.2. Damaged or faulty components are assessed against specifications according to standard operating procedures. 2.3. Faulty components are identified for repair, replacement or adjustment according to standard operating procedures.
3. Select replacement components	3.1. Where applicable, replacement and/or repaired parts are selected for reassembly according to standard operating procedures.
4. Assemble engineering components into assemblies or sub-assemblies	4.1. Appropriate techniques are applied in the preparation, assembly and adjustment of components using fastening equipment and methods which ensure conformance to specifications, operational performance, quality and safety of the completed assembly according to standard operating procedures. 4.2. Correct lubrication, packing, sealing materials are selected and applied correctly in conformance to job specifications. 4.3. Final component assembly is inspected, tested and adjusted as necessary for compliance with operational specifications and returned to use according to standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- obtaining and interpreting all relevant instructions, standard operating procedures, drawings and specifications
- preparing component for dismantling
- dismantling components using appropriate techniques, tools and equipment
- marking component parts appropriately for identification purposes
- checking components visually and dimensionally for conformance to specification
- where appropriate, marking faulty parts for repair, replacement or adjustment
- selecting and confirming replacement parts to specifications
- obtaining and using all relevant supplier catalogues
- preparing and assembling components using appropriate techniques in accordance with standard operating procedures
- where appropriate, applying lubricants correctly to the assembly in accordance with specifications and standard operating procedures
- where appropriate, applying packing and/or sealing materials in accordance with specifications and standard operating procedures
- inspecting and checking the final assembly for conformance to specification
- where appropriate, returning the final assembly to use

Required knowledge

Look for evidence that confirms knowledge of:

- tasks to be performed in accordance with standard operating procedures
- procedures for dismantling the assembly
- tools and equipment to be used to dismantle the components
- procedures and required equipment for checking components for conformance to specification
- specifications of the components to be replaced
- features and/or dimensions upon which replacement parts are to be selected
- process of identifying replacement parts from "third party" suppliers' catalogues
- procedures for assembling components
- requirements of the assembly in terms of specifications, operational performance, quality and safety
- procedures for lubricating the assembly
- materials
- checks to be undertaken during inspection of the final assembly
- procedures for returning components/assemblies into use
- hazards and control measures associated with dismantling, replacing and

REQUIRED SKILLS AND KNOWLEDGE

assembling engineering components, including housekeeping

- | |
|--|
| <ul style="list-style-type: none">• safe work practices and procedures |
|--|

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to dismantle, replace and assemble engineering components. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with dismantling, replacing and assembling engineering components or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

EVIDENCE GUIDE

Guidance information for assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Engineering components

Includes a range of component parts found in equipment or product assemblies, sub-assemblies, e.g. couplings, universal joints, pumps etc. employing shafts, pre-manufactured bearings and seals, lubricants, fasteners, gaskets etc.

Appropriate tools and equipment

Includes a range of hand and power tools, bearing pullers, special purpose dismantling and assembly tools etc.

Selected

Replacement parts are selected from manufacturers' catalogues, etc.

Appropriate techniques

Are in accordance with standard operating procedures and may include the straightforward removal and replacement of pre-manufactured bearings and seals

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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MEM30020A Develop and manage a plan for a simple manufacturing related project

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers developing and managing low risk manufacturing related projects that may be small scale and managed by one person and are carried out under guidance.
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Application of the Unit

Application of the unit	<p>This unit applies to technical work in all environments. Work is carried out under supervision. If skills in development of production schedule are required, then Unit MEM30021A (Prepare a simple production schedule) should be selected.</p> <p>Band: 0 Unit Weight: 0</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select appropriate project management tools and develop project plan	1.1. A working knowledge of project management tools is used to develop a plan for a simple manufacturing related project and schedule of activities to meet project outcomes. 1.2. The plan is referred to a supervisor for approval in accordance with policy and procedures.
2. Implement planned activities	2.1. Plan is implemented according to schedule. 2.2. All affected personnel are communicated with regarding project implementation. 2.3. Supply and/or allocation of required resources including materials and equipment is organised. 2.4. Project progress is regularly reported in relation to agreed milestones to provide a measure of performance throughout the life of the plan. 2.5. Progress is discussed in consultation with other staff and contractors to ensure effective outcomes.
3. Review project plan and schedule	3.1. Project outcomes, performance standards and project objectives are monitored and analysed against specifications and the results are reported in accordance with procedures. 3.2. Variations in keeping to plan are discussed with supervisors and are resolved in accordance with enterprise policy and procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
Look for evidence that confirms skills in: <ul style="list-style-type: none"> • using computing skills • using interpersonal communication skills • negotiating • report writing • reading, interpreting and following information on written job instructions,

REQUIRED SKILLS AND KNOWLEDGE

specifications, standard operating procedures and other applicable reference documents

- planning and sequencing operations
- checking and clarifying task-related information

Required knowledge

Look for evidence that confirms knowledge of:

- understanding of applicable regulations and standards
- appropriate software
- Gantt charts
- critical path method (CPM)
- bar charts
- work breakdown structures
- program evaluation and review technique (PERT)
- basic quality assurance techniques
- knowledge of availability of resources
- safe work practices and procedures
- a basic knowledge of:
 - the project life cycle and the relationship between project phases
 - planning and control procedures, resource management and risk management

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to develop and manage a plan for a simple manufacturing related project.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with developing and manage a plan for a simple manufacturing related project or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for	

EVIDENCE GUIDE

assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Project management tools

May include critical path method (CPM), bar and Gantt charts, work breakdown structures, Program Evaluation and Review Technique (PERT), project management software packages, recording systems - electronic and manual

Plan

May include project implementation plans, quality assurance targets, milestones, any planning that relates to time, cost or quality and requires that progress is communicated to others

Simple manufacturing related project

Projects that are small scale, low risk, managed by one person, carried out under guidance, related to manufacturing processes and products

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	
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Co-requisite units		

Competency field

Competency field	Engineering technician
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MSACMC411A Lead a competitive manufacturing team

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit covers the knowledge and skills needed by people who lead teams in a competitive manufacturing environment. The team may be operating in manufacturing or in a manufacturing support function e.g. maintenance, office, warehousing etc.</p>
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Application of the Unit

Application of the unit	<p>In a typical scenario, the team leader in a <i>competitive manufacturing</i> organisation needs to integrate a range of knowledge and skills. The team leader must lead and assist team members to understand and apply a holistic view of their job and the team's role within the organisation and the objectives that the team must meet as part of the competitive manufacturing system used by the enterprise.</p> <p>This unit requires the application of skills associated with communication, teamwork, problem solving, initiative, enterprise, planning, organising and self management in order to provide leadership in a competitive manufacturing team. This unit has a strong emphasis on planning and implementation, but also requires an ability to learn from experience and feed new information back into strategies to improve both the team's and own performance.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Facilitate the development of process and competitive manufacturing knowledge	1.1. Ensure necessary technical documentation and information about the process and <i>competitive manufacturing</i> is available to the team 1.2. Develop mentoring processes for team members 1.3. Structure team activities in a way which facilitates the ongoing development of the skills and knowledge of team members 1.4. Arrange for the provision of workforce development and training for team members as appropriate 1.5. Encourage team members to apply technical knowledge to the process.
2. Facilitate efficiency improvements in team activities	2.1. Ensure <i>budgets, operating procedures</i> and other related documentation is available to the team 2.2. Assist team members apply this information to the process responsibilities of the team 2.3. Encourage team members to identify <i>waste</i> 2.4. Develop an environment where efficiency improvements are recommended by team members
3. Resource and encourage a proactive maintenance approach	3.1. Develop communications between specialists outside the team and team members 3.2. Develop strategies to monitor and deal with <i>key reliability issues</i> 3.3. Resource and encourage team members to identify and take appropriate action on potential equipment problems 3.4. Arrange for workforce development and training for team members as required in proactive maintenance procedures and techniques 3.5. Involve team members in relating identified problems to the maintenance strategy, and developing any required changes, to ensure awareness, learning and commitment
4. Implement process and organisation improvements	4.1. Plan the implementation of team suggested and externally directed improvements 4.2. Facilitate team member commitment to, and involvement in, the implementation planning of improvements and to follow improvements to their conclusion

ELEMENT	PERFORMANCE CRITERIA
	<p>4.3. Encourage the application of the 'plan, do, measure, improve, control' approach to the job</p> <p>4.4. Arrange for workforce development and training as required to facilitate continued team involvement in improvement processes</p> <p>4.5. Involve team and other key personnel in identification of skill needs and means of skills acquisition to fill any identified gaps</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
<p>This section describes the skills and knowledge required for this unit.</p>
<p>Required skills:</p>
<ul style="list-style-type: none"> • communication techniques • negotiation skills • information finding and analysing/using skills • team work • planning and organising • problem solving
<p>Required knowledge:</p>
<ul style="list-style-type: none"> • understanding of the competitive manufacturing process or processes used at the enterprise

Evidence Guide

<p>EVIDENCE GUIDE</p> <p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
<p>Overview of assessment requirements</p>	<p>The competent person would be able to lead a competitive manufacturing team and facilitate their improving the process.</p>
<p>What critical aspects of evidence is required to demonstrate competency in this unit?</p>	<p>Evidence of effective team leadership would be required.</p>
<p>In what context should assessment occur?</p>	<p>Assessment needs to occur in an organisation implementing a competitive manufacturing environment or by a project.</p>
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<p>This unit could be assessed concurrently with other team leader units dealing with change/improvement in the organisation.</p>
<p>What method of assessment should apply?</p>	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment</p>
<p>What evidence is required for demonstration of consistent</p>	<p>Evidence from one significant manufacturing improvement or change process may be sufficient. For</p>

EVIDENCE GUIDE	
performance?	less significant improvement or changes, a range of changes will be needed to generate sufficient evidence.
What are the specific resource requirements for this unit?	Access to an organisation implementing a significant change to or in competitive manufacturing.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Competitive manufacturing</p>	<p><i>Competitive manufacturing</i> is used to describe the range of systemic manufacturing practice concepts and approaches. It covers but is not limited to:</p> <ul style="list-style-type: none"> • lean manufacturing • agile manufacturing • preventative and predictive maintenance approaches • monitoring and data gathering systems such as Systems control and data acquisition software (SCADA), enterprise resource planning systems (ERP), Manufacturing resource planning (MRP), and proprietary systems such as SAP etc. • statistical process control systems including six sigma and three sigma • just in time, kanban and other pull related manufacturing control systems • supply, value, and demand chain monitoring and analysis • other continuous improvement systems. <p>Competitive manufacturing should be interpreted so as to take into account the stage of implementation of competitive manufacturing approaches, the enterprise's size and work organisation, culture, regulatory environment and manufacturing sector..</p>
<p>Team</p>	<p><i>Team</i> may include work teams from all sections of the organisation including production, maintenance, technical, administration/finance, sales/marketing.</p>
<p>Budgets</p>	<p>Budgets include financial, time, materials/product and other business plans which are relevant to the team and the work area.</p>
<p>Waste</p>	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit/features in the product. Within manufacturing, categories of waste</p>

RANGE STATEMENT	
	<p>include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items <p>Waste for this unit may include activities which do not yield any benefit to the organisation or any benefit to the organisations customers.</p>
Key reliability issues	Key reliability issues are typically things like cleanliness, lubrication and correct adjustment which are most likely to lead to failure.

Unit Sector(s)

Unit Sector	CM Change/interpersonal
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMS400A Implement a competitive manufacturing system

Modification History

Not applicable.

Unit Descriptor

<p>Unit descriptor</p>	<p>This unit covers the knowledge and skills needed to implement competitive manufacturing practices. Generally, five areas drive competitive manufacturing: cost, quality, delivery, safety/environment, and morale. In a competitive manufacturing company systems will need to be implemented which drive continuous improvement in all these areas, without one area competing unduly with another.</p>
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Application of the Unit

<p>Application of the unit</p>	<p>In a typical scenario, team performance is continually reviewed against the five key areas and in liaison with other relevant people, and with the support of technical support staff, improvements in these five key areas are developed and implemented. Whereas other units may emphasise the competence to use one or more <i>tools</i>, this unit emphasises the ability to advance on all five key areas over a moderate time period.</p> <p>This unit requires the application of skills associated with problem solving and initiative and enterprise in order to identify opportunities to make improvements and maximise performance. Communication, teamwork and planning and organising skills will be required to implement improvements and address any conflicts that arise. This unit also requires an ability to identify appropriate technology, and to consider and integrate feedback on how personal performance can be improved. This requires self management and learning.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Optimise the manufacturing system	1.1. Apply competitive manufacturing practices to maximise health, safety and environment performance 1.2. Apply competitive manufacturing practices to maximise quality consistency 1.3. Apply competitive manufacturing practices to maximise performance by team members 1.4. Apply competitive manufacturing practices to maximise <i>customer</i> benefit/cost ratio 1.5. Apply competitive manufacturing practices to reduce lead time to delivery within the scope of the team's authority and responsibility 1.6. Negotiate with relevant stakeholders to resolve conflicts which arise 1.7. Select improvements which will deliver the greatest overall benefit for the resources required/available without reducing current performance on individual factors
2. Implement improvements	2.1. Implement the chosen improvement/s 2.2. Check the selected improvements improve the <i>system</i> as a whole and do not result in unintended consequences 2.3. Monitor implementation and make adjustments as required.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication
- communication
- interpersonal relationships
- prioritising
- mathematics
- statistics
- analysing
- conducting root cause analysis
- problem solving.
- solving.

Required knowledge:

- the customers and the benefits they derive from the products
- cost components and their relationship to customer benefits/features
- the suppliers and their capabilities
- product waste
- factors causing variability in a product and how to control them
- relevant tools for their job and how to apply them
- factors impacting on the product, process and waste, particularly those wholly or partially under their control (and how to control them)
- good health safety and environment (HSE) practice and factors impacting on HSE performance
- morale and how to improve it
- optimisation techniques appropriate to the organisation and the job
- application of quality standards and processes.

Evidence Guide

<p>EVIDENCE GUIDE</p> <p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
<p>Overview of assessment requirements</p>	<p>The person should be able to continuously make improvements to all key aspects of their team/process and any change made should be of benefit to the system as a whole.</p>
<p>What critical aspects of evidence are required to demonstrate competency in this unit?</p>	<p>Evidence of the implementation of the competitive manufacturing system and the improvements made to product, process and team.</p>
<p>In what context should assessment occur?</p>	<p>Assessment needs to occur in an organisation implementing competitive manufacturing or using a suitable project.</p>
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<p>This unit may be assessed concurrently with a unit on continuous improvement and or units on the use of competitive manufacturing tools.</p> <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMS200A Apply competitive manufacturing practices</i> which covers the lower skill level aspects of this competency.
<p>What method of assessment should apply?</p>	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement</p>

EVIDENCE GUIDE	
	of the assessment.
What evidence is required for demonstration of consistent performance?	Evidence will generally come from the routine implementation of competitive manufacturing and the routine continuous improvements which flow from this. As such evidence from a range of improvements is necessary.
What are the specific resource requirements for this unit?	Access to an organisation implementing competitive manufacturing.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Competitive manufacturing</p>	<p>Competitive manufacturing is used to describe the range of systemic manufacturing practice concepts and approaches. It covers but is not limited to:</p> <ul style="list-style-type: none"> • lean manufacturing • agile manufacturing • preventative and predictive maintenance approaches • monitoring and data gathering systems such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Manufacturing Resource Planning (MRP), and proprietary systems such as SAP etc. • statistical process control systems including six sigma and three sigma • Just in Time (JIT), kanban and other pull related manufacturing control systems • supply, value, and demand chain monitoring and analysis • other continuous improvement systems. <p>Competitive manufacturing should be interpreted so as to take into account the stage of implementation of competitive manufacturing approaches, the enterprise's size and work organisation, culture, regulatory environment and manufacturing sector.</p>
<p>Tools</p>	<p>Tools is used in this unit to mean the tools of competitive manufacturing such as 5S, 6 sigma, continuous improvement, cause effect diagrams, etc.</p>
<p>Customer</p>	<p>Competitive manufacturing organisations encompass the entire production system, beginning with the <i>customer</i>, and includes the product sales outlet, the final assembler, product design, raw material mining and processing and all tiers of the <i>value chain</i> (sometimes called the supply chain). Any truly 'competitive' system is highly dependent on the demands of its customers and</p>

RANGE STATEMENT	
	<p>the reliability of its suppliers. No implementation of competitive manufacturing can reach its full potential without including the entire 'enterprise' in its planning.</p> <p>Customer may be interpreted to be an internal customer, but typically the benefits to the final customer should be used as the basis for the identification of waste. The operator does not need to interface directly with the external customer, but should be provided with sufficient information to enable them to identify customer benefits and features.</p> <p>Supplier may be interpreted to be an internal supplier, but typically the external supplier and their abilities should be known. The operator does not need to interface directly with the external supplier, but should be provided with sufficient information to enable them to identify supplier abilities.</p>
System	A competitive manufacturing system is that holistic combination of the process, plant and equipment, procedures and practices including the skills and work organisation of the workforce which make up the productive organisation.

Unit Sector(s)

Unit Sector	CM Systems
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMS401A Ensure process improvements are sustained

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to ensure that the gains which have been made by using improved methods, processes and equipment are sustained as the new base line/standard to the team's area of work and so prevent regression to former practices, or digression to less efficient practices.
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Application of the Unit

Application of the unit	<p>This unit applies to an environment where continuous improvement in a manufacturing enterprise is being undertaken.</p> <p>The team leader or other responsible person then facilitates and implements methods of ensuring that these improvements are sustained.</p> <p>Improvement initiatives can be made by any of any number of methods and by teams or individuals. The unit assumes that desired levels of performance or quality are known.</p> <p>The unit covers ensuring that team members implement the modified processes to ensure the improvements are sustained and opportunities taken to suggest further improvements.</p> <p>This unit requires the application of skills associated with problem solving, initiative and enterprise, planning and organising in order to check and monitor the impacts of change. It also requires communication and teamwork in order to assess the impact of change in a team's area of work. Self management and learning will be used to continuously monitor change influences and adapt improvements according to new information and feedback.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Ensure corrective actions are implemented.	1.1. Liaise with relevant people associated with the anticipated corrective action 1.2. Ensure the supply of resources (equipment, modifications, consumables, people) 1.3. Check occupational health and safety (OHS) impacts of corrective action and take action in accordance with procedures if required 1.4. Ensure workforce has relevant skill level 1.5. Negotiate solutions with relevant people to allow implementation 1.6. Supervise implementation of corrective action 1.7. Monitor implementation of corrective action 1.8. Make required adjustments
2. Verify systems support improvement	2.1. Ensure <i>procedures</i> reflect improvements 2.2. Ensure training and assessment systems reflect improvements 2.3. Liaise with relevant people to ensure their support of the new modified system/s
3. Audit the change	3.1. Determine an appropriate audit period/cycle 3.2. Agree relevant measures/indicators for the improvement 3.3. <i>Measure performance</i> at agreed times using agreed measures 3.4. Investigate the cause/s of under performance 3.5. Take appropriate corrective action to improve performance 3.6. Reaudit the improvement on an agreed basis

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication/negotiation skills
- teamwork
- basic mathematics
- planning
- problem solving
- analysing.

Required knowledge:

- existing procedures
- modified procedures
- overall process of manufacturing relative to improvements being made
- appropriate measures of performance
- business performance goals sufficient to determine best measures of improved performance.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

<p>Overview of assessment requirements</p>	<p>The person will be able to point to improvements which have been made where they have been active in designing and implementing systems for sustaining the improvement.</p>
<p>What critical aspects of evidence are required to demonstrate competency in this unit?</p>	<p>Evidence of having sustained improvements in the workplace and of reviewing these improvements for their real impact.</p>
<p>In what context should assessment occur?</p>	<p>Assessment will need to occur in a workplace where improvements are occurring, or where specific improvement projects are undertaken for the purpose of providing evidence of competence (among other aims).</p> <p>The unit may also be assessed on a project basis in a simulated environment.</p>
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<p>This unit may be assessed concurrently with appropriate units on continuous improvement.</p> <p>This unit relates to a team leader ensuring that their team sustains improvements. <i>MSACMS201A Sustain process improvements</i> is a lower level unit for a person's own area of responsibility.</p>
<p>What method of assessment should apply?</p>	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which</p>

EVIDENCE GUIDE	
	would normally be available in the workplace. The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.
What evidence is required for demonstration of consistent performance?	Evidence should be available from multiple small changes, or from a large change which has had multiple facets implemented over a period of some months.
What are the specific resource requirements for this unit?	Access to a workplace implementing competitive manufacturing strategies, or where improvement projects can be conducted and relevant records is required. No other specific resources are required.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Systems

Systems is used to mean any/all of the equipment, process, procedures and work practices that are used to produce the product.

A term often used in this context is:

- Kaizen - the philosophy of continual improvement, that every process can and should be continually evaluated and improved in terms of time required, resources used, resultant quality, and other aspects relevant to the process.

Procedures

Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.

For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

Improvement

Improvement procedures in some enterprises are also known by baka-yoke which is a manufacturing technique of preventing mistakes by designing the manufacturing process, equipment and tools so that an operation literally cannot be performed incorrectly. An attempt to perform incorrectly, as well as being prevented, is usually met with a warning signal of some sort. The term poka-yoke is sometimes referred to as a system where only a warning is provided.

Improvements may be sustained by use of technology so that it is impossible to do the job any other way. However, improvements may also be sustained by changes to process or procedures or other changes to the manufacturing system which, if followed, will sustain the change and this unit may be applied to all these

RANGE STATEMENT	
	situations.
Measuring performance	Measuring performance is not used literally and may mean the personal taking of measurements, or it may mean arranging for measurements to be taken/made by appropriate personnel. The interpretation of the measurements however is to be undertaken personally.

Unit Sector(s)

Unit Sector	CM Systems
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMT220A Apply quick changeover procedures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to do quick changeovers.
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation is pursuing quick changeover as one of its competitive manufacturing tools. This unit covers the carrying out of these quick changeovers and also recommending improvements within the scope and authority of the individual's job.</p> <p>Particular technical skills may also be required in some manufacturing sectors and for some jobs. These will be contained in the relevant industry Training Package.</p> <p>This unit requires the application of skills associated with applying quick changeover procedures including the planning and organising of own work, identifying problems and making suggestions for improvement of procedures.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for changeover	1.1. Determine when changeover will be required 1.2. Obtain all required tools/parts/materials for changeover 1.3. Organise process, and tools/parts/materials ready for changeover 1.4. Identify role of others in quick changeover
2. Make quick changeover	2.1. Plan changeover according to quick changeover principles 2.2. Liaise and work with relevant people in quick changeover 2.3. Complete changeover according to <i>procedures</i> 2.4. Check output meets specification 2.5. Debrief with all relevant stakeholders 2.6. Note any steps which cause a problem 2.7. Recommend changes to problematic steps
3. Improve Occupational Health and Safety (OHS)	3.1. Identify hazards to self or others in all steps/actions 3.2. Determine risks from each hazard 3.3. Identify actions which may be performed in a more ergonomic manner 3.4. Recommend changes to improve OHS

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- ability to determine/predict when a changeover will occur
- communication
- teamwork
- appropriate tools/process skills for set-up

Required knowledge

- principles of quick changeover
- relevant procedures
- purposes/requirements of changeover
- methods of recommending changes
- quality requirements for products
- minimisation of changeover scrap

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
Overview of assessment requirements	The person will effectively and routinely carry out quick changeovers, in liaison with other relevant personnel, and will make recommendations for improving the changeover.
What are the specific resource requirements for this unit?	Access to an organisation using quick changeovers.
What critical aspects of evidence are required to demonstrate competency in this unit?	Evidence of routine positive participation in quick changeover.
In what context should assessment occur?	Assessment will need to occur in an organisation using quick changeover or a suitable simulation, for example, in a workshop.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be assessed concurrently with relevant technical process units.</p> <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT620A Develop quick changeover procedures</i> which covers the manager/design area for quick changeover.
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed</p>

EVIDENCE GUIDE	
	with the assessee prior to the commencement of the assessment.
What evidence is required for demonstration of consistent performance?	Evidence should be available of routinely participating in quick changeovers.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Changeover

Changeover may refer to an exchange of dies/tools (traditional), or a change between batches, or between campaigns. It may be any quantum equipment/process change to produce a different product.

Changeover is sometimes referred to as ***SMED*** which is a more extreme form where SMED is an abbreviation for Single Minute Exchange of Die; literally, changing a die on a forming or stamping machine in a minute or less; broadly, the ability to perform any ***set-up activity*** in a minute or less of machine or process downtime; the key to doing this is frequently the capability to convert ***internal set-up time*** to ***external set-up time***; variations on SMED include:

- Single-digit set-up: performing a set-up activity in a single-digit number of minutes, i.e. fewer than ten.
- OTED: One Touch Exchange of Die; literally, changing a die with one physical motion such as pushing a button; broadly, an extremely simple procedure for performing a set-up activity.

Set-up time - work required to change over a machine or process from one item or operation to the next item or operation ; can be divided into two types:

- ***internal set-up*** work that can be done only when the machine or process is not actively engaged in production; OR
- ***external set-up*** work that can be done concurrently with the machine or process performing production duties.

While the term die is the traditional term, competitive manufacturers who require changeover, but where dies are not used or are less significant, have applied this to a range of other changeovers.

This unit may not be applicable to a totally continuous operation producing only the one product, or

RANGE STATEMENT	
	simultaneous range of products. This is not applicable to a maintenance/ PVI shutdown as experienced by the continuous process manufacturers. However, where there is continuous manufacturing on a campaign basis, it may be applied to the changeover between campaigns or similar changeovers.
Procedures	<p>Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.</p> <p>For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.</p>

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT230A Apply cost factors to work practices

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed for an individual to identify cost components and to be able to determine in general terms the cost impacts of alternative actions.
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Application of the Unit

Application of the unit	<p>In a typical scenario, a person is required to contribute to and be involved in the assessment of cost factors in their work. This may be done individually or in a team environment.</p> <p>The person is able to assess the relative costs of the alternatives and use this as one of the key factors in making decisions. Decisions are made within the scope of the employee's authority and according to procedures. Typical decisions include those that contribute to the efficient organisation of own work and the improvement of production time and cycle times.</p> <p>This unit requires the application of skills associated with problem solving to identify cost factors and cost implications of own work and self management to apply cost effective practices.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify in own work area major cost components of product or process	1.1. Identify <i>cost components</i> in the product or <i>process</i> in own work area 1.2. Recognise the impact of current or alternative actions on costs
2. Identify constraints to cost efficiency	2.1. Identify required production/process rate and major costs 2.2. Identify costs factors under the control of the individual or team 2.3. Relate identified costs factors to impact on <i>overall cost</i> of production/process 2.4. Identify cost factors that are a constraint to cost efficiency in own work area
3. Apply cost efficient work practices	3.1. Express the implications of possible actions/changes to improve cost efficiency in simple financial terms 3.2. Identify non-financial implications of proposed changes in discussion with relevant people 3.3. Select actions which minimise overall costs 3.4. Monitor actions to ensure cost efficiency in own work area is maintained

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- basic numeracy
- problem solving
- communication

Required knowledge

- cost components of products made
- costs concepts such as expense and income
- major cost contributors to product (eg energy)
- the difference between internally and externally controlled costs
- difference between overhead, labour and consumables

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

Overview of assessment requirements	<p>The person will as part of their routine decision making aim to minimise costs. There should be evidence of their doing so.</p>
What are the specific resource requirements for this unit?	<p>Access to a workplace implementing competitive manufacturing strategies. No other specific resources are required.</p>
What critical aspects of evidence are required to demonstrate competency in this unit?	<p>Evidence of being able to identify costs factors relevant to an individual's job.</p> <p>Evidence of having made appropriate decisions to minimise overall costs.</p>
In what context should assessment occur?	<p>Assessment will need to occur in a workplace or by use of a work based case study.</p>
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be assessed concurrently with appropriate units on continuous improvement.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement</p>

EVIDENCE GUIDE	
	of the assessment.
What evidence is required for demonstration of consistent performance?	Evidence should be available over a period of time or from more than one process or product.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Cost components	Cost components include fixed and variable costs such as power/energy, materials, plant and equipment, production or process time including impact on salary and wages, office expenses such as telephone and government taxes and charges.
Process	Process may include a production, maintenance, logistics or office process in a manufacturing environment.
Overall cost	Overall cost may include the assessment of negative and positive financial implications. It also includes negative long term issues, such as Occupational Health and Safety (OHS), environmental and regulatory issues.

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT240A Apply 5S procedures in a manufacturing environment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed for an employee to apply 5S procedures (a structured approach to housekeeping) to their own job and work area.
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation has decided to embark on a competitive manufacturing strategy and as part of this has adopted the philosophy of 5S as one of the tools to move down this path. The employee needs to apply 5S to their job and work area and maintain the housekeeping and other standards set by 5S.</p> <p>This unit requires the application of skills associated with planning and organising, problem solving and self management, in order to identify and implement 5S housekeeping practices.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Sort needed from un-needed	1.1. Identify all <i>items</i> in the work area 1.2. Distinguish between essential and non-essential items 1.3. Place any non-essential item in a appropriate place, not in the work area 1.4. Regularly check that only essential items are in the work area
2. Set the workplace in order	2.1. Identify the best location for each essential item 2.2. Place each essential item in its assigned location 2.3. After use immediately return each essential item to its assigned location 2.4. Regularly check that each essential item is in its assigned location
3. Shine the work area	3.1. Keep the work area clean and tidy at all times 3.2. Conduct regular housekeeping activities during shift 3.3. Ensure the work area is neat, clean and tidy at both beginning and end of shift
4. Standardise activities	4.1. Follow <i>procedures</i> 4.2. Follow checklists for activities where available 4.3. Keep the work area to specified standard
5. Sustain the 5S system	5.1. Clean up after completion of job and before commencing next job or end of shift 5.2. Identify situations where compliance to standards is unlikely and take actions specified in procedures 5.3. Inspect work area regularly for compliance to specified standard 5.4. Recommend improvements to lift the level of compliance in the workplace

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication
- planning
- organising
- prioritising
- reading and interpretation
- recording
- problem solving

Required knowledge

- meaning and application of 5S to their job
- principles of efficient workplace organisation
- purposes of 5S
- procedures relevant to job
- methods of making/recommending improvements

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.	
Overview of assessment requirements	There should be evidence that the employee is routinely applying 5S principles in their routine work and that they are aware of why 5S is important.
What are the specific resource requirements for this unit?	Access to a plant implementing/practising 5S. No other specific resources re required.
What critical aspects of evidence is required to demonstrate competency in this unit?	Evidence of routine practice of 5S as part of their job.
In what context should assessment occur?	This unit needs to be assessed in a workplace practising, or beginning to implement, 5S.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit could be assessed concurrently with a unit on continuous improvement, or in conjunction with a technical unit related to the process.</p> <p>This unit differs from <i>MSACMT440A Lead 5S in a manufacturing environment</i> which applies to those who also need to help others apply 5S.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with</p>

EVIDENCE GUIDE	
	the assessee prior to the commencement of the assessment.
What evidence is required for demonstration of consistent performance?	There needs to be evidence that this is a consistent part of their routine work life, and as such, evidence is needed over an extended period.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

5S	<p>5S is a system of work organisation originally developed in Japan based around housekeeping principles.</p> <p>A close translation of the five stages in the housekeeping approach is:</p> <ul style="list-style-type: none"> • sort • set in order • shine • standardise • sustain
Sort	<p>Sort involves keeping only what is absolutely necessary for the production process on the production floor. As a first step, clear the work area of all non-essential equipment and materials. Remove anything either not required to produce the product or adjust the machine during the process. This helps to get rid of a 'just in case' mentality.</p>
Items in work area	<p>Items in work area include tools, jigs/fixtures, materials/components, plant and equipment, manuals, personal items (such as bags, lunch boxes, posters), safety equipment and personal protective equipment, and any other item which happens to be in the work area.</p>
Set in order	<p>After removing unnecessary materials, the remaining materials must be those that are required immediately for either the machine or the job at hand. All of these materials/change/parts etc must have an assigned location on the production floor. Locations should be clearly marked and labelled to show what belongs where.</p>
Shine	<p>The work area should be kept clean at all times. Cleaning must be carried out to a regular daily schedule against allowed time and, on most occasions, at the end</p>

RANGE STATEMENT	
	of a job.
Standardise	Once 5S is established, standardising activities help maintain the order and the housekeeping standards. Standardising may use procedures and checklists developed from a procedure.
Sustain	<p>Sustain means making sure that daily activities are completed every day regardless of circumstance. A job should always be cleaned up once finished regardless of the urgency of the next job. Informal inspections should be done often, at least weekly.</p> <p>Formal inspections of each area should be carried out at least monthly. Specific actions should be followed up. This will generate continuous improvement.</p>
Procedures	<p>Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the operation of the plant. They may be written, verbal, computer based or in some other form.</p> <p>For the purposes of CM, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.</p>

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT250A Monitor process capability

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit covers the knowledge and skills required for gathering of data and the interpretation of simple information to determine the compliance of the process and the taking of action as defined by the procedures where the information reveals the process is out of control parameters.</p>
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Application of the Unit

Application of the unit	<p>In a typical scenario an organisation has adopted either <i>six sigma</i> or statistical process control/ <i>three sigma</i> as a means of determining and improving the capability of their process. The team member is involved in this in collecting specified data and performing specified manipulations to the data (typically by plotting on a chart or by entering into a specified computer program). The information is typically presented to the team member in terms of graphs/charts which they are expected to interpret at a basic level and then take action in accordance with procedures to restore the process to being under control parameters.</p> <p>This unit requires the application of skills associated with entering and monitoring production information and requires initiative, enterprise and problem solving in identifying production variations and making improvement recommendations.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Collect and process data	1.1. Take specified measurements/readings as required 1.2. Enter data onto log/into computer or other record 1.3. Manipulate and/or chart data as required by <i>procedures</i> 1.4.
2. Identify variations that are not random and take action	2.1. Examine chart and/or reliability information 2.2. Distinguish between <i>random variations</i> and those with an identifiable cause 2.3. Take action specified in <i>procedures</i> when a variation with an <i>identifiable cause</i> occurs
3. Assist in process improvement	3.1. Collect data for process capability improvement trials as directed 3.2. Make recommendations for improvement as required 3.3. Implement revised capability monitoring <i>procedures</i> as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- problem solving
- statistical control
- planning
- communication

Required knowledge

- data collection methods
- data processing techniques required
- basic variability and normal distribution
- recognition of identifiable causes in accordance with procedures
- causes of different types of identifiable causes as defined by procedures
- actions to be taken for the different causes

Evidence Guide

<p>EVIDENCE GUIDE</p> <p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
<p>Overview of assessment requirements</p>	<p>The person performing this unit would be expected to collect the correct data at the required frequency, perform the required manipulations on the data and then recognise assignable causes and take the required action (which may just be reporting).</p>
<p>What are the specific resource requirements for this unit?</p>	<p>Access to a work place utilising either 6 sigma or 3 sigma is required. Where it is necessary to use synthetic information for assessment purposes, then a bank of such information should be created.</p>
<p>What critical aspects of evidence are required to demonstrate competency in this unit?</p>	<p>Evidence should be available of data collected and processed. There may also be evidence of assignable causes recognised and action taken. There should not be evidence of assignable causes ignored.</p>
<p>In what context should assessment occur?</p>	<p>Assessment will need to occur in a workplace implementing either 3 sigma or 6 sigma.</p>
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<p>This unit may be assessed concurrently with a continuous improvement or a quality unit.</p> <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT450A Undertake process capability improvements</i>, and • <i>MSACMT650A Determine and improve process capability</i> <p>which apply to the intermediate and highest skill levels in CM respectively.</p> <p>It may also be appropriate to relate this unit to <i>MEM15001B Perform basic statistical quality control</i> and possibly also <i>MEM15008B Perform advanced statistical quality control</i> where the person is required to perform statistical manipulations (i.e. where these are not done automatically for the person eg by a computer system).</p>
<p>What method of assessment should apply?</p>	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined</p>

EVIDENCE GUIDE

	<p>by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>
<p>What evidence is required for demonstration of consistent performance?</p>	<p>Evidence of the routine collection and processing of data should be available from the workplace. Consistent interpretation of information should also be available from the workplace, although this may need to be supplemented with synthetic data as above. The interpretation of multiple assignable causes is more important than the consistent interpretation of one type of assignable cause.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Six sigma</p>	<p>Six sigma is a process improvement methodology based on statistical process control with six sigma limits which equates to 3.4 defects per million opportunities for each product or service transaction.</p> <p>Six sigma is also often used as a general term covering a competitive manufacturing approach. Six sigma training typically covers several units of competency in this Training Package.</p>
<p>Three sigma</p>	<p>Three sigma includes statistical process control with three sigma limits which equates to 3 defects per thousand opportunities for each product or service transaction.</p>
<p>Procedures</p>	<p>Procedures includes all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.</p> <p>For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.</p>
<p>Random variation</p>	<p>Random variation is the term used in statistical control to refer to those variations for which no cause can be found.</p>
<p>Identifiable cause</p>	<p>Also referred to as an 'assignable cause' or a 'special cause' are those variations for which a cause can be found and so the cause of the variation eliminated.</p>

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT251A Apply quality standards

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit is based on <i>LMTQAGN01A Apply quality standards</i>.</p> <p>This unit covers the skills and knowledge required to apply quality standards to work operations in a manufacturing enterprise.</p>
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Application of the Unit

Application of the unit	<p>In a typical scenario, an employee is expected to take responsibility for the quality of their own work, and to take actions specified in the procedures and within the scope of their job and authority to ensure that quality standards are met.</p> <p>This unit requires the application of skills associated with interpreting and applying workplace standards and identifying and addressing problems that interfere with quality outcomes. The unit requires initiative, enterprise and self management to ensure quality standards are achieved.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess own work	1.1. Continuously check completed work against workplace standards relevant to the operation being undertaken 1.2. Demonstrate an understanding of how the work activities and completed work relate to the next production process or processes and to the final products concerned 1.3. Identify and isolate faulty pieces/components or final products/batches 1.4. Record and/or report the faults and any identified causes to the supervisor concerned where required in accordance with workplace <i>procedures</i>
2. Assess quality of received component parts/materials	2.1. Continuously check received materials, component parts or final products against workplace standards and specifications for conformance 2.2. Demonstrate an understanding of how the received materials or component parts relate to the current operation and how they contribute to the final quality of the product 2.3. Identify and isolate faulty material or component parts related to the operator's work 2.4. Record and/or report the faults and any identified causes to the supervisor concerned where required, in accordance with workplace procedures 2.5. Identify causes of any identified faults and take corrective action specified in the workplace procedures
3. Measure parts/materials	3.1. <i>Measure</i> materials, component parts or products, as required, using the appropriate measuring instruments in accordance with workplace procedures
4. Record information on production indicator	4.1. Record basic information on the quality and other <i>indicators of production performance</i> in accordance with workplace procedures
5. Investigate causes of quality deviations	5.1. <i>Investigate and report</i> causes of deviations from specified quality standards for materials, component parts or final products, as required, using the appropriate measuring techniques in

ELEMENT	PERFORMANCE CRITERIA
	<p>accordance with workplace procedures</p> <p>5.2.Recommend suitable preventative action based on workplace quality standards and the identified causes of deviations from specified quality standards of materials, component parts or final products</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- interpret work instructions, specifications, standards and patterns appropriate to the assessee's work
- carry out relevant visual inspections of materials, component parts and final products
- carry out relevant physical/chemical measurements or tests
- maintain accurate work records in accordance with procedures
- carry out work in accordance with OHS policies and procedures
- meet work specifications
- communicate effectively within defined workplace procedures
- interpret and apply defined procedures

Required knowledge

- relevant quality standards, policies and procedures
- relevant production processes, materials and products
- basic characteristics of materials used in the relevant production processes
- safety and environmental aspects of relevant production processes
- relevant measurement techniques and quality checking procedures
- workplace procedures
- reporting procedures

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

<p>Overview of assessment requirements</p>	<p>Competence should be demonstrated in the appropriate work context dependent on the level of responsibility being exercised.</p> <p>Work is assessed in accordance with enterprise quality standards, relevant statutory requirements, organisation insurance requirements, OHS legislation, manual handling procedures and relevant health regulations.</p>
<p>What are the specific resource requirements for this unit?</p>	<p>Access to real or appropriately simulated production situations including areas, materials, equipment, and information on work specifications/patterns, relevant safety procedures and regulations, quality standards, organisation procedures and customer requirements.</p>
<p>What critical aspects of evidence are required to demonstrate competency in this unit?</p>	<p>Assessment must confirm appropriate knowledge and skills to:</p> <ul style="list-style-type: none"> • interpret, relevant work instructions, standards and specifications appropriate to the assessee's work • check and measure the relevant quality parameters • interpret the results of quality checks in terms of specifications, patterns and work standards • take required action where standards of materials, component parts, final product or work processes are found to be unacceptable • maintain accurate records.
<p>In what context should assessment occur?</p>	<p>Assessment may occur on the job or in an appropriately simulated environment.</p>
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<p>This unit may be assessed in conjunction with the other relevant units.</p> <p>In some contexts it may be necessary to use specific measuring equipment to check the quality and this may require competence in using that equipment. Where that is the case, it is appropriate to assess this unit in conjunction with that other relevant unit.</p>
<p>What method of assessment should</p>	<p>Assessors must be satisfied that the person can</p>

EVIDENCE GUIDE	
apply?	<p>consistently perform the unit as a whole, as defined by the elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>
What evidence is required for demonstration of consistent performance?	<p>Applies underpinning knowledge and skills when:</p> <ul style="list-style-type: none"> • interpreting work instructions, specifications, standards and patterns appropriate to the assessee's work • describing consequences • completing tasks • identifying improvements within defined procedures • applying safety precautions relevant to the task • assessing operational capability of specified equipment used and work processes. <p>Shows evidence of application of relevant workplace procedures including:</p> <ul style="list-style-type: none"> • quality procedures • hazard policies and procedures including codes of practice relevant to their job within defined procedures • job procedures and work instructions • waste, pollution and recycling management processes within defined procedures • action taken promptly, accidents and incidents reported in accordance with statutory requirements and enterprise procedures • recognises and adapts appropriately to cultural

EVIDENCE GUIDE	
	<p>differences in the workplace, including modes of behaviour and interactions among staff and others in accordance with workplace procedures</p> <ul style="list-style-type: none"> • work completed systematically with attention to detail without damage to goods, equipment or personnel.
What evidence is required for demonstration of consistent performance?	<p>Applies underpinning knowledge and skills when:</p> <ul style="list-style-type: none"> • interpreting work instructions, specifications, standards and patterns appropriate to the assessee's work • describing consequences • completing tasks • identifying improvements within defined procedures • applying safety precautions relevant to the task • assessing operational capability of specified equipment used and work processes. <p>Shows evidence of application of relevant workplace procedures including:</p> <ul style="list-style-type: none"> • quality procedures • hazard policies and procedures including codes of practice relevant to their job within defined procedures • job procedures and work instructions • waste, pollution and recycling management processes within defined procedures • action taken promptly, accidents and incidents reported in accordance with statutory requirements and enterprise procedures • recognises and adapts appropriately to cultural differences in the workplace, including modes of behaviour and interactions among staff and others in accordance with workplace procedures • work completed systematically with attention to detail without damage to goods, equipment or personnel.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Work site environment	Work may be conducted in a large scale production or small business situation.
Quality parameters	Quality parameters may include: <ul style="list-style-type: none"> • finish • size • durability • product variations • materials • alignment • colour • damage and imperfections.
Quality checks	Quality checks may include: <ul style="list-style-type: none"> • visual inspection • physical measurements • chemical tests • checks against patterns, templates and guides.
Measure	Measure includes those measurements which may be taken by the employee in the work place/at their work station.
Procedures	Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the operation of the plant. They may be written, verbal, computer based or in some other form. For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.
Indicators of production	Indicators of production performance include things like

RANGE STATEMENT	
performance	number of items/production rate, delays and causes of delays (where known) and other information as specified in the procedures.
Data entry/recording	Data entry/recording may include: <ul style="list-style-type: none"> • keyboard • written (including ticks or signs) • verbal.
Sources of information/documents	Sources of information/documents may include: <ul style="list-style-type: none"> • quality and Australian standards and procedures • work instructions, patterns, designs and recipes • organisation work procedures • manufacturer instructions for materials and equipment • organisational or external personnel • customer requirements.
Investigate and report	Investigate and report in this unit is used to mean following set procedures defined for such investigations. These procedures could include verbal instructions, documented procedures or other quality procedures as implemented within an enterprise or work environment.
Workplace context	Work organisation procedures and practices relating to the manufacture and quality outcomes for products. Conditions of service, legislation and industrial agreements including: <ul style="list-style-type: none"> • workplace agreements and awards • Federal or State/Territory legislation • standard work practice.
Reporting/communication	Reporting/communication may include verbal and written communication in accordance with organisational policies and procedures. Communication may be oral, written or visual and can include simple data.
Being responsible for the maintenance of own work quality	Being responsible for the maintenance of own work quality may include being required to contribute to the quality improvement of team or section output, where necessary, in accordance with workplace procedures. Safety, environmental, housekeeping and quality are as

RANGE STATEMENT	
	specified by materials/machine/equipment manufacturers, regulatory authorities and the enterprise.
Applicable regulations and legislation	Applicable regulations and legislation may include: <ul style="list-style-type: none"> • Occupational Health and Safety (OHS) legislation relevant to workplace activities • workers' compensation legislation.

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT270A Use sustainable energy practices

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the skills needed to use and make improvements in sustainable energy practices in production, maintenance and logistics.
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Application of the Unit

Application of the unit	<p>In a typical scenario, a team member will be aware of energy use. Some of this energy use is necessary but typically a large part of energy use is <i>unnecessary waste</i> and so should be eliminated. The team member will observe energy use and ensure it is according to the organisation's plans and will also engage in continuous improvement for energy use.</p> <p>This unit requires the application of skills associated with interpreting workplace information on energy use and using procedures and technology to minimise energy use and waste.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify energy use	1.1. Identify energy consuming processes in relation to own work 1.2. Recognise the type/source of <i>energy</i> consumed
2. Follow energy conservation plans	2.1. Check energy use in accordance with conservation plans 2.2. Identify most efficient or appropriate equipment or procedures to comply with conservation plans 2.3. Identify any uses which do not comply with conservation plans 2.4. Take action in accordance with procedures to bring energy use back in line with conservation plans
3. Improve energy use	3.1. Note any waste of energy use 3.2. Recommend improvements to energy use

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis
- basic mathematics
- communication
- problem solving

Required knowledge

- types and sources of energy relevant to the process
- basic principles of energy efficiency
- process needs for energy

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.	
Overview of assessment requirements	The team member will be able to identify the energy use of any/all parts of the process and recommend better ways of using it.
What are the specific resource requirements for this unit?	Access to an organisation seeking to improve its energy usage.
What critical aspects of evidence are required to demonstrate competency in this unit?	Evidence of conformance to energy usage plans and suggestions for improvement should be available.
In what context should assessment occur?	Assessment needs to be conducted in an organisation where energy is a significant cost component or by use of a project, simulation or case study.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	This unit is related to: <ul style="list-style-type: none"> • <i>MSACMT271A Use sustainable environmental practices</i> - which covers general environmental practices, and • <i>MSACMT670A Develop and manage sustainable energy practices</i> - which covers higher level aspects.
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the</p>

EVIDENCE GUIDE	
	assessment.
What evidence is required for demonstration of consistent performance?	Evidence should be available from the daily routine of the job to show that there is consistent performance.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Waste</p>	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit/features in the product. Within manufacturing, categories of waste include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items. <p>Waste for this unit may include activities which do not yield any benefit to the organisation or any benefit to the organisations customers.</p>
<p>Energy</p>	<p>Energy is used to mean all sources of energy used by the process be it electricity, gas or mobile transport fuel. The uses of the energy will also be potentially wide and include heating and cooling, lighting, moving materials (including pumps and conveyors), modifying materials (including cutting, forming, weaving, knitting, reacting, moulding, extruding, mixing), generating pressure/vacuum or providing motive power for equipment and transport.</p>

Unit Sector(s)

<p>Unit Sector</p>	<p>CM Tools</p>
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT271A Use sustainable environmental practices

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to use and make improvements in sustainable environmental practices in production, maintenance and logistics.
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Application of the Unit

Application of the unit	<p>In a typical scenario, a team member will be aware of <i>environmental resource</i> use. Some of this is <i>necessary</i> but typically a large part of environmental resource use may be <i>unnecessary waste</i> and so should be eliminated or at least minimised. The team member will observe resource use and ensure it is according to the organisations plans and will also engage in continuous improvements for resource use.</p> <p>This unit requires the application of skills associated with applying workplace information on use of resources and managing own application of technology and workplace practices to minimise use and waste of resources.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify resource use	1.1. Identify resources used by processes in area of responsibility 1.2. Recognise the type/source of resource used 1.3. Identify sources of information to expand knowledge and understanding of resources used
2. Comply with environmental obligations	2.1. Follow procedures to ensure there is no breach of environmental regulations/licence conditions 2.2. Identify situations related to job which may lead to a breach of regulations/licence conditions
3. Follow resource conservation plans	3.1. Identify resource conservation plan/section of plan relevant to area of responsibility 3.2. Identify most efficient or appropriate equipment or processes to comply with conservation plans 3.3. Check resource use is in accordance with plan 3.4. Sort/recycle waste according to procedures 3.5. Note any uses which do not comply with plan 3.6. Take appropriate action specified in plan to bring resource use back in line with plans 3.7. Apply energy conservation plans to the use of equipment and tools
4. Improve resource use	4.1. Identify waste of resource use 4.2. Recommend improvements to resource use

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis
- basic mathematics
- communication
- problem solving

Required knowledge

- the '3 Rs' - reduce, re-use, recycle
- regulatory/licensing requirements relevant to the process/plant
- types and sources of resource
- basic principles of resource efficiency
- process needs for resource

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
Overview of assessment requirements	The competent team member will be able to identify the resource use of any/all part/s of the process and recommend better ways of using it.
What are the specific resource requirements for this unit?	Access to an organisation seeking to improve its resource usage.
What critical aspects of evidence are required to demonstrate competency in this unit?	Evidence of conformance to resource usage plans and suggestions for improvement should be available.
In what context should assessment occur?	Assessment needs to be conducted in an organisation where resource is a significant cost component or by project, simulation or case study.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT270A Use sustainable energy practices - which covers energy specifically, and</i> • <i>MSACMT671A Develop and manage sustainable environmental practices - which covers the higher skill levels.</i>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed</p>

EVIDENCE GUIDE	
	with the assessee prior to the commencement of the assessment.
What evidence is required for demonstration of consistent performance?	Evidence should be available from the daily routine of the job to show that there is consistent performance.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Waste</p>	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit/features in the product.</p> <p>Within manufacturing, categories of waste include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items. <p>Waste for this unit may include activities which do not yield any benefit to the organisation or any benefit to the organisations customers.</p>
<p>Necessary waste</p>	<p>Necessary waste is any activity or cost which does not contribute directly to customer benefit/feature in the product, and which cannot be avoided (for example regulatory compliance and fixed costs). Necessary waste cannot be eliminated but should be managed.</p>
<p>Unnecessary waste</p>	<p>Unnecessary waste is any activity or cost which does not contribute directly to customer benefit/features in the product and can be avoided. Unnecessary waste should be eliminated as quickly as practical.</p>
<p>Resource</p>	<p>Resource is used to mean resources used by the process be it raw materials, components, process water, cooling water, cleaning water and so on.</p>
<p>Recognise</p>	<p>Recognition of type of resource is at an appropriate level for the person and the area and includes things like recognising steam/electric heating, cooling water/refrigerated cooling, raw materials waste</p>

RANGE STATEMENT	
	materials.

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT281A Contribute to the application of a proactive maintenance strategy

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills required to make a positive contribution to proactive maintenance strategies which include things like plant uptime and Overall Equipment Efficiency (OEE).
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation is following a predictive, preventative or reliability centred maintenance strategy and this requires commitment from all employees. The employee should 'own' their equipment/plant and take an active part in the implementation of the strategy within the scope of their authority.</p> <p>This unit requires the application of skills associated with accessing and maintaining equipment/plant documentation, It also requires problem solving and initiative and enterprise to continually monitor and maintain operational performance of equipment/plant used in work role.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Maintain equipment/ plant	1.1. Keep equipment/plant within area of responsibility clean 1.2. Ensure equipment/plant is serviced and adjusted as required in accordance with <i>procedures</i> and own level of responsibility 1.3. Access manufacturer manuals/specifications where required to expand knowledge on the maintenance of equipment/plant 1.4. Access and update documentation on equipment/plant operation and maintenance as appropriate to workplace procedures
2. Monitor operation of equipment/plant	2.1. Regularly check key conditions of the equipment/plant as defined in the procedures 2.2. Regularly check equipment/plant Overall Equipment Efficiency (OEE) 2.3. Note any deviation from conditions specified in procedures 2.4. Identify any previous occurrences of this deviation
3. Identify deviations and patterns	3.1. Identify any previous occurrences of a deviation 3.2. Identify any related deviations which have occurred 3.3. Identify any unusual occurrence which may be related to a deviation
4. Take action appropriate to competency and authority on deviation	4.1. Liaise with relevant people regarding the deviation and the solution 4.2. Implement solution/assist with the implementation of the solution as appropriate

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- mathematical literacy
- analysis
- problem solving
- communication

Required knowledge

- normal behaviour of the equipment/plant
- indicators of abnormal performance
- principles of operation sufficient to recognise problems and propose solutions
- appropriate cleaning and adjusting for the equipment/plant/area as required by procedures

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.	
Overview of assessment requirements	The employee should 'own' their plant/equipment and take a lead role in ensuring that it is always operating in peak condition and with high and increasing OEE.
What are the specific resource requirements for this unit?	Access to a plant using a proactive maintenance strategy.
What critical aspects of evidence are required to demonstrate competency in this unit?	There should be evidence of deviations recognised and appropriate solutions implemented.
In what context should assessment occur?	Assessment needs to occur in an organisation using a predictive maintenance strategy.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be assessed concurrently with other units dealing with maintenance.</p> <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT280A Undertake root cause analysis which is one of the analysis tools, and</i> also to • <i>MSACMT481A Undertake proactive maintenance analyses, and</i> • <i>MSACMT681A Develop a proactive maintenance strategy</i> <p>which cover the intermediate and high skill levels respectively.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures,</p>

EVIDENCE GUIDE	
	<p>information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>
What evidence is required for demonstration of consistent performance?	Evidence should be required from a range of activities indicating that the maintenance and monitoring elements are a routine part of the job and that the identification of patterns and taking action has occurred in a range of situations.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Uptime	Uptime refers to the overall availability of the plant - it is the inverse of downtime or the unavailability of the plant. Ideal uptime is 100%.
Overall Equipment Efficiency (OEE)	<p>Overall Equipment Efficiency (OEE) is the combination of the main factors causing loss of productive capacity from equipment/plant and is:</p> <p><i>OEE = availability x performance x quality rate</i></p> <p>where:</p> <ul style="list-style-type: none"> • availability takes into account losses due to breakdown, set up and adjustments • performance takes into account losses due to minor stoppages, reduced speed and idling • quality rate takes into account losses due to rejects, re-works and start up waste.
Procedures	<p>Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.</p> <p>For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.</p>

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSACMT432A Analyse manual handling processes

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills to analyse manual handling in terms of its efficiency and safety.
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Application of the Unit

Application of the unit	<p>In a typical scenario a team leader or team member examines the manual handling component of a job and improves it in terms of safety, effort required and efficiency. This may be conducted for a job performed by others in the team, or it may be for the person's own job.</p> <p>This unit primarily requires the application of skills associated with problem solving and initiative and enterprise to identify safe and efficient manual handling and planning and organisation to ensure processes are implemented. This unit also requires communication with and involvement of team members to ensure they understand the approach and to facilitate training.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess manual handling risks	1.1. Identify <i>manual handling hazards</i> in work area 1.2. Assess risks arising from those hazards
2. Analyse physical effort requirements of job	2.1. Determine basic manual handling requirements of job 2.2. Analyse requirements in terms of components such as lift, move, place, hold 2.3. Analyse items to be handled in terms such as weight, size, shape or other hazards
3. Determine time/effort components of physical effort	3.1. Break required movement pattern down into movement components 3.2. Determine time and effort requirements for movements 3.3. Develop alternative movement patterns 3.4. Determine time and effort requirements for alternative movements 3.5. Determine handling aids required to assist movement 3.6. Determine preferred movement pattern/s
4. Analyse the ergonomics of physical effort	4.1. Analyse the ergonomics of the preferred movement pattern 4.2. Develop substitute movements for any movement which is not ergonomically sound 4.3. Determine handling aids required to improve ergonomics of required movements
5. Optimise application of physical effort	5.1. Select movement patterns which are ergonomically sound and time and effort efficient 5.2. Train all relevant people to use these methods 5.3. Ensure <i>procedures</i> and practices reflect the optimum methods 5.4. Communicate with team members and involve them in development of alternatives to ensure awareness and facilitate learning

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication
- analysis
- teamwork
- basic mathematics
- problem solving.

Required knowledge:

- relevant OHS acts and regulations as applied to manual handling
- principles of efficient movement
- principles of efficient job and work method design
- principles of work analysis
- principles of ergonomics/safe movement.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

<p>Overview of assessment requirements</p>	<ul style="list-style-type: none"> The person will be able to examine a job for its physical components and then determine a better way of doing it. As a side benefit they will become more aware of poor manual handling practice and raise an alert to it.
<p>What critical aspects of evidence are required to demonstrate competency in this unit?</p>	<ul style="list-style-type: none"> Evidence should be available of the analysis and improvements of the physical/manual handling aspects of jobs in the workplace.
<p>In what context should assessment occur?</p>	<ul style="list-style-type: none"> Assessment should use evidence from the analysis of real jobs or an appropriate simulation.
<p>Are there any other units which could or should be assessed with this unit or which relate directly to this unit?</p>	<ul style="list-style-type: none"> There are no related units. Concurrent assessment may be undertaken with appropriate units.
<p>What method of assessment should apply?</p>	<ul style="list-style-type: none"> Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment. Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit. The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace. The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.

EVIDENCE GUIDE	
What evidence is required for demonstration of consistent performance?	<ul style="list-style-type: none">• Where evidence is from continuous improvement activities, then a range of such improvements needs to be considered to provide sufficient evidence. Where evidence is coming from one, complex improvement activity then it may provide sufficient evidence.
What are the specific resource requirements for this unit?	<ul style="list-style-type: none">• Access to a workplace which will allow the improvement of physical actions.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Procedures

Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.

For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

Manual handling hazards

Manual handling hazards include all requirements as defined by the relevant occupational health and safety (OHS) acts and regulations, industry standards and best practice.

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMT440A Lead 5S in a manufacturing environment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competencies needed to facilitate and improve the 5S housekeeping environment.
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation is implementing or practising a 5S approach to housekeeping. While 5S places much of the responsibility on team members, team leaders needs to support, encourage and facilitate effective 5S in the workplace.</p> <p>The manufacturing environment for 5S may include the warehouse, tool shops, office etc.</p> <p>This unit requires the application of skills associated with communication, teamwork, problem solving, initiative, enterprise, planning, organising and self management in order to provide leadership in a 5S environment. This unit has a strong emphasis on planning and change management, but also requires an ability to learn from experience and feed new information back into strategies to improve performance.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Facilitate the set up of 5S	1.1. Assist team members to determine what are necessary and unnecessary items in the work area 1.2. Assist team members to determine optimum assigned location for all necessary items 1.3. Liaise with relevant production and occupational health and safety (OHS) personnel in determining optimum locations 1.4. Assist team members to determine optimum location for unnecessary items 1.5. Assist team members to determine 5S schedule 1.6. Ensure <i>procedures</i> reflect 5S practices 1.7. Assist team members to achieve the required level of skill
2. Monitor 5S	2.1. Check work area for 5S implementation as part of normal routine 2.2. Identify non-conformances 2.3. Negotiate solutions to non-conformances
3. Improve the 5S	3.1. Work with team members to find areas for improvement 3.2. Assist team members to develop improvement solutions 3.3. Facilitate the availability of resources required for the improvement solution 3.4. Facilitate the implementation of the improvement solution

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication
- planning
- organising
- prioritising
- reading and interpretation
- recording
- problem solving
- teamwork.

Required knowledge:

- meaning and application of 5S to their job
- principles of efficient workplace organisation
- purposes of 5S
- procedures relevant to job
- identification of skill gaps
- methods of addressing skill gaps
- ways of encouraging team members to find and suggest areas for improvement
- methods of making/recommending improvements
- methods of accessing required resources
- OHS

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.	
Overview of assessment requirements	There should be evidence of successful application of 5S in the person's work group and their positive interaction with it.
What critical aspects of evidence are required to demonstrate competency in this unit?	There should be evidence of the person's assisting team members to implement 5S and/or to implement improvements to 5S. There should be evidence of continuous improvement.
In what context should assessment occur?	Assessment needs to occur in a workplace practising or implementing 5S.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit could be assessed concurrently with other units relating to the team leader's interactions with their team.</p> <p>This unit differs from <i>MSACMT240A Apply 5S procedures in a manufacturing environment</i> which covers the application of 5S to the person's own work.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement</p>

EVIDENCE GUIDE	
	of the assessment.
What evidence is required for demonstration of consistent performance?	5S needs to be a routine, natural part of everyone's job. As such there should be evidence of consistent application of 5S over an extended period.
What are the specific resource requirements for this unit?	Access to a workplace implementing or practising 5S. No other specific resources are required.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Procedures

Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form.

For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

5S

5S is a system of work organisation originally developed in Japan based around: A close translation of the five stages in the housekeeping approach is:

- sort
- set in order
- shine
- standardise
- sustain

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMT451A Mistake proof a production process

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to make changes which prevent errors and/or backsliding to a pre-improvement level of practice. In the CM environment, this unit would typically be done by a team leader, technical expert of similar person.
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Application of the Unit

Application of the unit	<p>In a typical scenario a person needs to analyse the process that a team is responsible for and determine methods of <i>mistake proofing</i> it (i.e. ensuring it only produces product within an, acceptable range). After improvement activities have been undertaken these improvements need to be sustained.</p> <p>This unit requires the application of skills associated information gathering and analysis. Initiative, enterprise and problem solving are also required to identify mistakes and determine strategies for eliminating them. This unit also requires communication and team building skills to ensure mistake proofing strategies are implemented, and self management and learning skills to continually reflect on and integrate feedback about the effectiveness of strategies.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse process	1.1. Identify sources of variability/non-conformance in the process 1.2. Identify critical control points in process 1.3. Analyse causes of variability/non-conformance
2. Develop preventative techniques/systems	2.1. Liaise with team members and other people to develop mistake proof method of performing operation 2.2. Test and validate mistake proofing
3. Implement permanent fix	3.1. Liaise with relevant people to have systems/procedures changed to implement solution 3.2. Liaise with relevant people to implement the solution 3.3. Liaise with relevant people to ensure the workforce has an appropriate skills set 3.4. Follow through to ensure implementation occurs
4. Monitor implementation	4.1. Critically observe the implementation 4.2. Compare the results of the implementation against the expected outcomes 4.3. Modify solution to improve outcomes 4.4. Ensure procedures reflect change 4.5. Ensure training/assessment reflects change 4.6. Audit change at agreed period/cycle 4.7. Take action on any observed deviation
5. Seek improvements	5.1. Observe changes 5.2. Analyse process again if required to ensure improvements are sustained

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- communication ability to discuss items with both operators and technical support personnel
- problem solving
- analysis
- team work
- design conceptualisation.

Required knowledge:

- understanding of their process
- factors in the process which may cause variability
- methods of controlling the variability in the process
- mistake proofing methods relevant to the process/product.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

Overview of assessment requirements	<p>The person will be able to analyse their process and implement systems to ensure the process is mistake proof and the operators, work in a predictable way with little or no chance of mistake.</p>
What critical aspects of evidence are required to demonstrate competency in this unit?	<p>Evidence of actions taken to mistake proof the process should be available.</p>
In what context should assessment occur?	<p>Assessment needs to occur in a workplace implementing competitive manufacturing or by using a suitable project.</p>
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be used as a stand alone unit or it may be assessed concurrently with any of:</p> <ul style="list-style-type: none"> • <i>MSACMT250A Monitor process capability</i> • <i>MSACMT450A Undertake process capability improvements</i> • <i>MSACMT650A Determine and improve process capability.</i>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of</p>

EVIDENCE GUIDE	
	the assessment.
What evidence is required for demonstration of consistent performance?	Where evidence is from the application of <i>baka-yoke</i> to continuous improvement, then there should be evidence that it is practiced routinely and from a number of standardisation activities. Where the evidence is from an initial standardisation of a process, or a single, large and complex standardisation/change process the may provide sufficient evidence.
What are the specific resource requirements for this unit?	Access to an organisation using a competitive manufacturing approach.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Mistake proofing

Sometimes known as baka-yoke/poka-yoke, a manufacturing technique of preventing mistakes by designing the manufacturing process, equipment, tools and components/subassemblies etc so that an operation literally cannot be performed incorrectly. An attempt to perform incorrectly, as well as being prevented, is usually met with a warning signal of some sort.

Procedures

Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the operation of the plant. They may be written, verbal, computer based or in some other form.

For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMT452A Apply statistics to processes in manufacturing

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills required to apply statistical theory and principles to the analysis and control of processes in manufacturing.
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Application of the Unit

Application of the unit	<p>In a typical scenario, statistical process control is being used on a process in a manufacturing organisation. Usually this will be to monitor the process and determine when action needs to be taken. The appropriate action will then be taken in accordance with standard procedures.</p> <p>To do this the person will apply their knowledge of frequency distribution and variation to the data/chart to distinguish between random and non-random variation and their understanding of the process and/or equipment to help interpret those results.</p> <p>This unit primarily requires the application of skills associated with gathering and analysing data and communicating statistical information to others. This unit also has a strong emphasis on problem solving, initiative and enterprise, planning and organising, and self management to solve problems and manage processes.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Collect process data.	1.1. Interpret sampling scheme 1.2. Obtain measurements in accordance with standard procedures 1.3. Handle data as required.
2. Interpret data	2.1. Plot data on appropriate control chart 2.2. Distinguish between random and non-random patterns of results 2.3. Identify results outside the control limits 2.4. Recognise situations requiring action 2.5. Take appropriate action in accordance with standard procedures 2.6. Determine cost of non-conformance
3. Calculate control limits.	3.1. Consult relevant stakeholders to determine appropriate limits 3.2. Use relevant methods to calculate/revise control limits 3.3. Plot limits on control chart 3.4. Explain impact of limit to relevant stakeholders

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- analysis
- problem solving
- communication
- documenting
- calculations
- use of statistics

Required knowledge:

- sampling techniques
- purpose of sampling and measurement
- random, systematic, stratified sampling
- relevance, reliability and representativeness of samples/data collected
- purpose of replication of data for statistical control
- samples, populations, finite and infinite populations and the differences
- methods of calculating means, standard deviations and the like and their purpose in statistical control
- the causes of variation in a process
- the meaning of broad/ narrow frequency distributions/ range/standard deviations and skewed distributions in process terms
- types of control charts and their applications to different types of process/product and for different purposes
- process causes of variation and typical cause types of non-random variation
- non-process (eg measurement) causes of variation
- recognition of stable and unstable processes
- causes of stability/instability in the process
- calculation of control limits/process capability and the applications of different control limits
- the standard distribution curve and confidence limits.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide describes the underpinning knowledge and skills that must be demonstrated to prove competence. It is essential for assessment and must be read conjunction with the performance criteria, the range statement and the assessment guidelines of the relevant Training Package

Overview of assessment requirements	The competent person will be able to apply statistical theory to a process to interpret and reduce its variation.
What critical aspects of evidence is required to demonstrate competency in this unit?	Evidence of the application of statistical theory to a process should be available
In what context should assessment occur?	Assessment will need to occur in an organisation implementing statistical process control or by project.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	This unit could be assessed concurrently with other units dealing with process capability and/or change management.
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of</p>

EVIDENCE GUIDE	
What evidence is required for demonstration of consistent performance?	Generally the application of statistics over a period of time would be required to generate sufficient evidence
What are the specific resource requirements for this unit?	Access to an organisation using statistical control.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Sampling scheme	Sampling scheme may include: <ul style="list-style-type: none"> • sampling for attributes or sampling for variables • batch, continuous or custom made products • number of items/samples • size of sample • timing of sampling • location of sampling points • type of sample • number/type of measurements to be done on each sample • sampling equipment • measurement/testing equipment/methods
Procedures	Procedures includes all work instructions, standard operating procedures, formulas/ recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form. For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Good Manufacturing Practice (GMP), Responsible Care) and government regulations.
Handle data	Handle data may include: <ul style="list-style-type: none"> • calculating means, ranges, mean of means, standard deviation (using appropriate calculation aids) • entering data into a software package • recording data either in writing or electronically • other required manipulations of the data.
Control chart	Control charts may include: <ul style="list-style-type: none"> • run • tally

RANGE STATEMENT	
	<ul style="list-style-type: none"> • mean/range • attributes • other relevant charts
Random	Random variation is the term used in statistical control to refer to those variations for which no cause can be found.
Non-random	Non-random, also called identifiable cause, or assignable cause or special cause are those variations for which a cause can be found and so the cause of the variation eliminated. Non-random variation may also be used to predict possible breaches of the control limits.
Control limits	Control limits, also referred to as process capability are those limits within which the process will operate if it is 'under control'.
Cost of non-conformance	<p>Cost of non-conformance includes:</p> <ul style="list-style-type: none"> • reprocessing/rework • expediting • unplanned service • excess inventory • complaint handline • downtime • returns • scrap • labour costs • material costs • infrastructure costs/overhead • utility costs
Appropriate limits	<p>Appropriate limits may include:</p> <ul style="list-style-type: none"> • 1 sigma warning limits • 2 sigma warning limits • 3 sigma control limits • 6 sigma limits

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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MSACMT671A Develop and manage sustainable environmental practices

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills needed to identify opportunities for and make improvements in sustainable environmental practices in production, maintenance and logistics. Areas covered include efficient use of raw materials, management of waste, electricity conservation, heat conservation and management, water management, environment protection and environment obligations of enterprises.
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Application of the Unit

<p>Application of the unit</p>	<p>This is the highest level sustainable environmental practices unit in the CM. In a typical scenario, there is a need to reduce <i>waste</i> in the <i>value chain</i>. Part of this is the cost of <i>environmental resources</i> to the process. Some of this is <i>necessary waste</i> but a large part of environmental resource use may be <i>unnecessary waste</i> and so should be totally eliminated. In order to make these savings, there is a need to analyse environmental resource use and cost in all its forms and then develop and implement plans for the more efficient use of energy.</p> <p>This unit primarily requires the application of communication and problem solving skills associated with collecting and analysing information. An ability to analyse resource use of technology or processes will be applied. Initiative and enterprise, and planning and organising are also required to develop plans for efficient resource use. This unit also requires aspects of self management and learning to ensure feedback and new learning is integrated into the development of processes.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

<p>Prerequisite units</p>	
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Employability Skills Information

<p>Employability skills</p>	<p>This unit contains employability skills.</p>
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse resource use	1.1. Identify all resource consuming processes 1.2. Determine quantity and nature of resource consumed 1.3. Analyse resource flow through different parts of the process
2. Develop resource conservation plans	2.1. Determine the efficiency of use/conversion of resources 2.2. Determine causes of low efficiency of use 2.3. Develop plans for increasing the efficiency of resource use 2.4. Check resource use plans comply with regulations/licensing requirements 2.5. Determine benefit/cost of plans
3. Investigate alternative sources of resource	3.1. Determine the function of the resource used 3.2. Develop a specification for function 3.3. Identify a range of sources for meeting that function 3.4. Determine benefit/cost for alternative resource sources
4. Develop plans for more efficient resource use	4.1. Compare benefit/costs for different alternatives developed 4.2. Rank proposals based on benefit/cost compare to limited resources 4.3. Check proposals meet regulatory requirements 4.4. Recommend proposals for improving resource efficiency
5. Implement selected plans	5.1. Liaise with relevant people to implement resource efficiency plans 5.2. Follow through to ensure implementation occurs 5.3. Monitor implementation and make adjustments as required 5.4. Check new resource usage to ensure improvements have occurred

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis
- mathematics
- communication
- problem solving
- data gathering.
- planning and organising

Required knowledge

- the '3Rs' - reduce, re-use, recycle
- regulatory/licensing requirements
- types and sources of resources
- methods of analysing resource efficiency for different resources
- alternative resources/alternative ways of achieving the same function
- principles of resource efficiency
- relevant regulatory/legislative requirements
- process needs for resources

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p>	
Overview of assessment requirements	The person will be able to analyse the resource use of any/all part/s of the process and determine if there are more efficient/cheaper ways of achieving the same result.
What are the specific resource requirements for this unit?	Access to an organisation seeking to improve its resource usage.
In what context should assessment occur?	Assessment needs to be conducted in an organisation where resource use is a significant cost component.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT271A Use sustainable environmental practices</i> - which covers the individual application level, and • <i>MSACMT670A Develop and manage sustainable energy practices</i> - which covers energy specific aspects.
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>
What evidence is required for demonstration of consistent performance?	If evidence is from a major project to improve resource efficiency, then it may provide sufficient evidence. If evidence is from a number of minor improvements to resource use then a range of such improvements will be needed to provide

EVIDENCE GUIDE	
	sufficient evidence.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Resources	Resources includes all raw materials and components as well as cooling water, process water, cleaning water, fuels, lubricants and other materials used in/required by the process.
Waste	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit/features in the product.</p> <p>Within manufacturing, categories of waste include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items. <p>Waste for this unit may include activities which do not yield any benefit to the organisation or any benefit to the organisations customers.</p>
Necessary waste	Necessary waste is any activity or cost which does not contribute directly to customer benefit/feature in the product, and which cannot be avoided (e.g. regulatory compliance and fixed costs). Necessary waste cannot be eliminated but should be managed.
Unnecessary waste	Unnecessary waste is any activity or cost which does not contribute directly to customer benefit/features in the product and can be avoided. Unnecessary waste should be eliminated as quickly as practical.

Unit Sector(s)

Unit Sector	CM Tools
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Co-requisite units

Co-requisite units	
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Functional area

Functional Area	
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MSAENV472B Implement and monitor environmentally sustainable work practices

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This competency covers the outcomes required to effectively analyse the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.</p> <p>This unit is based on the sustainability guideline standard GCSSUS02A Implement and monitor environmentally sustainable work practices.</p>
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Application of the Unit

Application of the unit	<p>This competency applies to those who have responsibility for a specific area of work or who lead a work group or team. It addresses the knowledge, processes and techniques necessary to implement and monitor environmentally sustainable work practices, including the development of processes and tools.</p> <p>It includes:</p> <ul style="list-style-type: none"> • Identifying areas for improvement • Developing plans to make improvements • Implementing and monitoring improvements in environmental performance. <p>This competency applies to all sectors of the manufacturing industry and members of its value chain. It may also be applied to all sections of an organisation, including office, warehouse etc. This unit will need to be appropriately contextualised as it is applied across an organisation and across different industry sectors.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	This unit has no prerequisites	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Investigate current practices in relation to resource usage.	1.1 Identify environmental regulations applying to the enterprise. 1.2 Assess procedures for assessing <i>compliance</i> with environmental regulations. 1.3 Collect information on environmental and resource efficiency systems and procedures, and provide to the work group where appropriate. 1.4 Measure and record current resource usage by members of the work group. 1.5 Analyse and record current purchasing strategies. 1.6 Analyse current work processes to access information and data and assist in identifying areas for improvement.
2. Set targets for improvements.	2.1 Seek input from stakeholders, key personnel and specialists. 2.2 Access external sources of information and data as required. 2.3 Evaluate alternative solutions to workplace environmental issues. 2.4 Set efficiency targets.
3. Implement performance improvement strategies.	3.1 Source <i>techniques/tools</i> to assist in achieving targets. 3.2 Apply continuous improvement strategies to own work area of responsibility and communicate ideas and possible solutions to the work group and management. 3.3 Integrate environmental and resource efficiency improvement plans for own work group with other operational activities and implement them. 3.4 Seek suggestions and ideas about environmental and resource efficiency management from stakeholders and act upon them where appropriate. 3.5 Implement costing strategies to fully value environmental assets.
4. Monitor performance.	4.1 Document outcomes and communicate reports on targets to key personnel and stakeholders. 4.2 Evaluate strategies. 4.3 Set new targets and investigate and apply new tools and strategies. 4.4 Promote successful strategies and reward participants where possible.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- using relevant environmental and resource efficiency systems, tools and procedures
- applying quality assurance systems relevant to own work area
- applying relevant supply chain procedures
- measurement and calculation techniques
- communication/consultation skills to ensure information is supplied to the work group

Reading and writing is required to comprehend documentation and interpret environmental and energy efficiency requirements and to document and maintain records

Numeracy is required to interpret numeric workplace information, readings and measurements, handle data as required and complete numeric components of workplace forms/reports.

Required knowledge

Required knowledge includes:

- how to access and use relevant environmental and resource efficiency systems, tools and procedures
- understanding of best practice approaches relevant to own area of responsibility
- strategies to maximise opportunities and minimise impacts relevant to own work area
- relevant environmental and resource efficiency issues specific to industry practices
- methods for measuring and calculating resource usage

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competence in this unit must be able to provide evidence of the ability to implement and monitor integrated environmental and resource efficiency management policies and procedures within an organisation.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:</p> <ul style="list-style-type: none"> • monitor and investigate current resource usage • develop plans to improve sustainability • implement environmental improvements. <p>Consistent performance should be demonstrated. For example, look to see that:</p> <ul style="list-style-type: none"> • environmental performance is routinely monitored and investigated • areas for improvements are followed through and the implemented changes are in turn monitored and investigated.
<p>Context of and specific resources for assessment</p>	<p>This section should be read in conjunction with the range of variables for this unit of competency. Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.</p> <p>Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation.</p> <p>A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.</p> <p>Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified</p>

EVIDENCE GUIDE	
	for people with disabilities.
Method of assessment	<p>A holistic approach should be taken to the assessment.</p> <p>Competence in this unit may be assessed:</p> <ul style="list-style-type: none"> • by demonstration in the workplace • using targeted questioning for appropriate portions • through use of specific project(s) • by use of a suitable simulation and/or a range of case studies/scenarios • by a combination of these techniques. <p>In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment.</p>
Guidance information for assessment	<p>Assessors need to be aware of any cultural issues that may affect responses to questions.</p> <p>Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Environmental and resource efficiency issues

Environmental and resource efficiency issues include:

- addressing environmental and resource sustainability initiatives such as Environmental Management Systems, action plans, surveys and audits
- reference to standards, guidelines and approaches such as:
 - ISO 14001 Environmental Management Systems
 - Life Cycle Analyses
 - Cradle to cradle
 - Global Reporting Initiative
 - Ecological footprinting
 - Triple Bottom Line reporting
 - Product Stewardship
- determining enterprise's most appropriate waste treatment including waste to landfill, recycling, re-use and wastewater treatment
- applying the waste management hierarchy in the workplace
- initiating and/or maintaining appropriate enterprise procedures for operational energy consumption, including stationary energy and

RANGE STATEMENT	
	<p>non stationary (transport)</p> <ul style="list-style-type: none"> • efficient use of water • minimising greenhouse gas emissions • use of controls to minimise the risk of environmental damage from hazardous substances
Measure	<p>Measuring techniques include:</p> <ul style="list-style-type: none"> • material fed to/consumed by plant/equipment • plant meters and gauges • job cards including kanbans • examination of invoices from suppliers • measurements made under different conditions • examination of relevant information and data • others as appropriate to the specific industry contexts.
Techniques and tools	<p>Techniques and tools may includeÂ : </p> <ul style="list-style-type: none"> • visual workplace concepts • measurement, display and/or recording devices • changed work practices/procedures • competence development and awareness training • process and equipment items
Compliance	<p>Compliance includes meeting relevant federal, state and local government laws, by-laws, regulations and codes of practice.</p>
Incidents	<p>Incidents include:</p> <ul style="list-style-type: none"> • breaches or potential breaches of regulations • occurrences outside of standard procedure which may lead to lower environmental performance
Purchasing strategies	<p>Purchasing strategies include:</p> <ul style="list-style-type: none"> • influencing suppliers to take up environmental sustainability • selecting materials/components with a lower environmental profile.
Stakeholders, key personnel and specialists	<p>Stakeholders, key personnel and specialists include individuals and groups both inside and outside the organisation that have some direct interest in the</p>

RANGE STATEMENT	
	<p>enterprise's conduct, actions, products and services, including:</p> <ul style="list-style-type: none"> • employees at all levels of the organisation • customers • suppliers • other organisations • key personnel within the organisation, and specialists outside it who may have particular technical expertise
Suggestions	<p>Suggestions includes ideas that help to:</p> <ul style="list-style-type: none"> • prevent and minimise environmental risks and maximise opportunities • reduce emissions of greenhouse gases • reduce use of non-renewable resources • make more efficient use of energy, water and other resources • maximise opportunities to re use and recycle materials • identify strategies to offset or mitigate environmental impacts. e.g. purchasing of carbon credits • express purchasing power through the selection of suppliers with improved environmental performance. e.g. purchasing renewable energy and materials with lower embedded carbon • eliminate the use of hazardous and toxic materials increasing the reusability/recyclability of wastes/products.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Competitive manufacturing tools
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Co-requisite units

Co-requisite units		

MSAPMOHS110A Follow emergency response procedures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit relates to the appropriate response to emergency situations for any new workers at the workplace, possibly delivered as part of an induction program.

Application of the Unit

Application of this unit

This competency applies to operators who are required to know the signals when an emergency situation takes place as well as the proper procedures to follow in order to save oneself from possible injury and/or death.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Know when emergency happens.	1.1 Locate emergency signals and controls on machines and/or at the worksite. 1.2 Interpret the signals to take appropriate action. 1.3 Identify emergency where there is no mechanical/ electronic signal.
2. Follow emergency procedures.	2.1 Report emergency according to procedures. 2.2 Identify emergency leader. 2.3 Follow workplace procedures and work instructions for dealing with a range of emergencies, under direct supervision of emergency leader. 2.4 Describe the potential consequences of failing to follow these procedures and instructions. 2.5 Describe what to do if the emergency leader cannot be located when emergency occurs.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Knowledge and understanding of the emergency response procedures sufficient to recognise emergency situations and then determine the appropriate action.

Knowledge of the relevant OHS and environmental requirements, and organisation standard operating procedures, is required along with an ability to implement them in a manner that is relevant to emergency response practices.

Competence includes the ability to:

- identify location of emergency signals on machines and/or at the worksite
- identify emergency situations in which there is no mechanical/electronic signal
- report identified emergency signals/situations to the designated person
- identify the emergency leader
- follow emergency procedures.

Evidence of knowledge of all relevant workplace procedures will include:

- emergency, fire and accident procedures
- chemical spill procedures
- procedures for the use of personal protective clothing and equipment
- organisation standard operating procedures (SOPs)
- hazard policies and procedures
- safety procedures
- personal protective clothing relevant to the required response to the emergency situation.

Language, literacy and numeracy requirements

This unit requires the ability to recognise and respond to emergency signals or other communication of an emergency.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency.

Assessment will occur over a range of situations that will include disruptions to normal, smooth operation.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- recognise potential emergency situations

- take the appropriate action.

Emphasis should be on the ability to follow proper procedures in order to save oneself from possible injury and/or death.

Consistent performance should be demonstrated. For example, look to see that:

- emergency situations are recognised and communicated promptly
- emergency procedures are understood and followed.

These aspects may be best assessed using a range of scenarios/case studies/what ifs as the stimulus with a walk through forming part of the response. These assessment activities should include a range of problems that may have been generated from the past incident history of the workplace and incidents on similar operations around the world.

Assessment method and context

Assessment for this unit will be on a processing plant or in a manufacturing environment. Simulation may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual work environment and will include walk throughs of the relevant competency components. Simulations may also include the use of case studies/scenarios and role plays. Emergency drills are a common and appropriate simulation.

This unit of competency requires a body of knowledge which will be assessed through questioning and the use of 'what if' scenarios both in the workplace (during demonstration of normal operations and walk throughs of abnormal operations) and off the job.

Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

It is expected that this competency may be applicable in combination with other industry, occupation or workplace-specific competencies. In all cases it may be appropriate to assess this unit concurrently with relevant teamwork and communication units.

Specific resources for assessment

Assessment will require access to an operating plant or work environment over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations. A bank of scenarios, case studies and 'what ifs' will be required as will a bank of questions that will be used to probe the reasoning behind the observable actions.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This unit of competency describes emergency situation requirements applicable to all workers. It involves the use of workplace policies and procedures to maintain a safe work environment for oneself and others.

All operations to which this unit applies are subject to stringent health, safety and environment requirements, which may be imposed through State or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This unit of competency includes use of equipment and tools such as PPE required for emergency response.

Hazards

Typical hazards include:

- handling chemicals and hazardous materials
- chemical and or hazardous materials spillage
- gases and liquids under pressure
- moving machinery
- materials handling
- working at heights, in restricted or confined spaces, or environments subjected to heat, noise, dusts or vapours
- fire and explosion.

Personnel

Appropriate personnel for reporting of emergency may include:

- employer
- supervisor
- employees elected as emergency team leader
- other personnel with emergency team leader responsibilities.

Emergency issues

Emergency issues that may need to be raised by workers with designated personnel/ responded to may include:

- observation of injury or incident in the workplace
- fires
- chemical or oil spills
- gas leak or vapour emission
- utilities failure
- bomb scares
- failure or malfunction of plant/machinery.

Emergency signals

Emergency signals include:

- visual - flashing lights
- auditory - alarms.
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Unit Sector(s)

Not applicable.

MSAPMOHS220A Provide initial First Aid response

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit deals with the provision of essential First Aid in recognising and responding to an emergency using basic life support measures.

Application of the Unit

Application of this unit

This competency applies to operators who have a First Aid role as part of their job. The 'first aider' is not expected to deal with complex casualties or incidents, but to provide an initial response where First Aid is required. In this unit it is assumed the 'first aider' works under supervision, either individually or as part of a team, and/or according to established workplace First Aid procedures and policies.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Assess the situation.	1.1 Identify physical hazards to own and others' health and safety. 1.2 Minimise immediate risk of hazard to self and casualty's health and safety in accordance with OHS requirements. 1.3 Assess the casualty's vital signs and physical condition in accordance with workplace procedures.
2. Apply basic First Aid techniques.	2.1 Provide First Aid management in accordance with established First Aid procedures. 2.2 Reassure and make casualty comfortable in a caring and calm manner using available resources. 2.3 Seek First Aid assistance from others in a timely manner and as appropriate. 2.4 Monitor and respond to casualty's condition in accordance with effective First Aid principles and workplace procedures. 2.5 Accurately record details of casualty's physical condition, changes in conditions, management and response to management in line with organisational procedures. 2.6 Finalise casualty management details according to casualty's needs and First Aid principles.
3. Communicate details of the incident.	3.1 Request medical assistance using relevant communication media and equipment. 3.2 Accurately convey details of casualty's condition and management activities to emergency services/relieving personnel. 3.3 Prepare reports to supervisors in a timely manner, presenting all relevant facts according to established company procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Knowledge and understanding of basic life support measures sufficient to provide an initial response where First Aid is required within the scope of their responsibilities and competencies.

Knowledge and application of the Australian Resuscitation Council (ARC) guidelines. The following knowledge should be demonstrated in assessment:

- basic anatomy and physiology
- company standard operating procedures (SOPs)
- legal responsibilities and duty of care
- dealing with confidentiality
- knowledge of the first aiders' skills and limitations
- Occupational Health and Safety legislation and regulations and requirements
- how to gain access to and interpret materials safety data sheets (MSDSs)
- First Aid management
- State and Territory workplace health and safety requirements
- allergies the casualty may have
- location and nature of the workplace
- the environmental conditions, eg electricity, biological risks, weather, motor vehicle accidents
- location of emergency service personnel
- the use and availability of First Aid equipment and resources
- infection control
- established First Aid principles, including:
 - checking the site for danger to self, casualty and others and minimising the danger
 - checking and maintaining the casualty's airway, breathing and circulation.

Evidence should demonstrate the following skills:

- resuscitation
- demonstration of First Aid casualty management principles - assessing and minimising danger, maintaining the casualty's airway, breathing and circulation
- safe manual handling of casualty
- consideration of the welfare of the casualty
- report preparation
- communication skills
- ability to interpret and use listed documents.

Underpinning knowledge and skills:

- basic anatomy and physiology
- duty of care
- resuscitation
- bleeding control
- care of unconscious
- infection control
- airway management

- State/Territory regulatory requirements relating to currency of skills and knowledge
- decision-making
- legal requirements
- assertiveness skills
- communication skills.

Language, literacy and numeracy requirements

This unit requires the ability to communicate both verbally and in writing with relevant people regarding the casualty's condition and treatments initiated.

Writing is required to the level of completing required workplace forms and reports.

Numeracy is required to read, interpret and report numeric data relevant to the casualty and the treatments.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Assessment will occur using industrial treatment scenarios and will be undertaken in a work-like environment.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- work individually, under supervision or as part of a First Aid team.

Assessment method and context

Competence in this unit may be assessed:

- by using appropriate, industrial scenarios
- in a situation allowing the generation of evidence of the ability to respond to problems
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

In a major hazard facility, it may be appropriate to assess this unit concurrently with:

- PMPOHS200 Work safely
- PMASUP220 Monitor and control environmental hazards.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required. Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to people with a First Aid role.

Procedures

All operations are performed in accordance with procedures. Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- defibrillation units
- pressure bandages
- thermometers
- First Aid kits
- eyewash
- thermal blankets
- pocket face masks
- rubber gloves
- dressing
- spacer device
- cervical collars
- mobile phones
- satellite phones
- HF/VHF radio
- flags
- flares
- two way radio
- email
- electronic equipment

- medication which includes aerosol bronchodilators for asthma; casualty's own (or from First Aid kit) in accordance with State/Territory legislation, adrenaline for severe allergic reactions; subject to casualty's own regime.

Hazards

Typical hazards include:

- workplace hazards
- environmental hazards
- proximity of other people
- hazards associated with the casualty management process.

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'.

Variables

Key variables to be monitored include:

- vital signs, including breathing, circulation, consciousness.

Variables indicating the casualty's condition, including:

- abdominal injuries
- allergic reactions
- bleeding
- burns - thermal, chemical, friction, electrical
- cardiac conditions
- chemical contamination
- cold injuries
- crush injuries
- dislocations
- drowning
- envenomation - snake, spider, insect and marine bites
- environmental conditions such as hypothermia, dehydration, heat stroke
- epilepsy, diabetes, asthma and other medical conditions
- eye injuries
- fractures
- head injuries
- minor skin injuries
- neck and spinal injuries
- needle stick injuries
- poisoning and toxic substances
- respiratory management of asthma and/or choking
- shock
- smoke inhalation
- soft tissue injuries, including sprains, strains, dislocations
- substance abuse, including drugs
- unconsciousness, including not breathing and no pulse.

Risks

Risks may include:

- worksite equipment, machinery and substances

- environmental risks
- bodily fluids
- risk of further injury to the casualty
- risks associated with the proximity of other workers and bystanders.
-

Unit Sector(s)

Not applicable.

MSAPMOPS212A Use organisation computers or data systems

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the use of organisation computers or data systems in order to work effectively. The operator is familiar with the system, can locate and use the appropriate data and is able to accurately record data into the system as required. This competency covers the use of computer equipment and company software programs, including selecting the correct programs for use and identifying minor faults in equipment or software.

This competency is typically performed by operators working either independently or as part of a work team.

Application of the Unit

Application of this unit

This competency applies to operators who are required to store and retrieve data, and produce documents, spreadsheets relevant to operational or administrative functions within the organisation. It includes:

- inputting data to the systems as required
- locating and accessing data as required for production support/problem solving
- using data to support business objectives
- producing construction documents, reports and spreadsheets
- running system checks and virus scans manually if automated systems fail
- producing required documentation within the security limits imposed by the company.
-

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Identify applications of computer or data system for work role.	1.1 Identify data and information available from the system and its application to work role. 1.2 Identify data from work role which needs to be entered in the system.
2. Use the computer/data system.	2.1 Adjust work station equipment to meet ergonomic requirements and use appropriate posture. 2.2 Log-on according to procedures. 2.3 Navigate system as required. 2.4 Input data or make changes as required. 2.5 Check entered or edited data is correct. 2.6 Access required data/information. 2.7 Output data as required. 2.8 Use 'Help' as needed.
3. Save file and exit system.	3.1 Save and store data in appropriate directory or folder. 3.2 Close file and exit applications programs without loss of data. 3.3 Back-up data if required in accordance with procedures.
4. Respond to routine problems with the system	4.1 Recognise known faults that occur during the operation. 4.2 Identify and take action on causes of routine faults. 4.3 Log problems as required. 4.4 Identify non-routine process and quality problems and take appropriate action.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Knowledge of organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards. Competence includes an understanding of the organisation data system to the level needed to use the system and recognise and resolve problems. In particular it includes the ability to:

- demonstrate the operation of and access to data from the system
- describe the scope and range of data required from the system, in order to support the solution of problems
- describe the nature of the scope and range of available data
- describe the causes and remedies of common problems such as those selected in the Range Statement
- describe principles of operation of the equipment and software, hazard policies and procedures, job procedures and work instructions
- explain the application of software in relation to work role.

Competence also includes the ability to isolate the causes of problems to a component of the organisation data system and to distinguish between causes of problems such as:

- incorrect or misleading data
- system software faults
- system equipment faults.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and material labels as provided to operators.

Writing is required to the level of completing workplace forms

Numeracy is also required to the extent of requiring competence in essential mathematical functions including + - x and ÷.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the ability to recognise and analyse potential situations requiring action and then in implementing appropriate corrective action. The reasoning process behind the problem analysis and determining the required actions should be assessed.

Consistent performance should be demonstrated. For example, look to see that:

- in-plant computer programs are correctly utilised
- software problems are recognised and solved effectively and efficiently
- documents are completed to the standard required
- the operation and access to data from the system can be demonstrated
- data can be input and output from the system as required
- obvious problems in related to operation of the system are recognised and an appropriate contribution made to their solution.

Assessment method and context

Assessment will occur using industrial equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- on a processing plant allowing for operation under all normal and a range of abnormal conditions
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This unit of competency includes organisation computer and data systems. This may include systems which cover (select relevant items):

- Word and Excel documents
- safety, safety data and injury reporting
- orders, purchasing, stock levels and scheduling
- stock control, stores, warehousing and logistics
- materials hazards, labelling, materials identification, materials safety data sheets (MSDSs)
- batch data, schedules, production planning and operations planning
- product quality, statistical control, production trends and quality control
- maintenance, maintenance planning, procedures and spare parts.

The organisation systems will usually be computerised, but may include data sheets, paper or hard copy records, manuals and instructions.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- computers - stand alone and/or networked
- mobile terminals and hand held devices
- printers
- mouse, keyboard
- facsimile equipment
- onboard terminals
- scanners
- bar coders.

Software applications may include:

- CC mail and email
- Internet or intranet
- word processing, database and spreadsheet programs
- company/process specific software
- word processing, database and spreadsheet programs.

Documents may include:

- work orders
- work instructions/standard operating procedures
- email or CC mail
- faxes
- memos
- tables
- standard letters
- standard reports.

Hazards

Typical hazards include:

- repetition strain injuries
- glare from monitor screens
- damages cables or connections
- strains or injuries moving computer equipment.

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'. Typical process and product problems may include:

- software problems, such as unable to access file, find correct page or send CC mail, input data.
- loose or disconnected cables
- 'frozen' screens
- faulty monitors
- key board problems.

Variables

Key variables to be monitored include:

- types of hardware systems
- access and log on procedures
- types of software packages
- Internet/intranet systems
- types of data to be stored and retrieved.
-

Unit Sector(s)

Not applicable.

MSAPMSUP101A Clean workplace or equipment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers general housekeeping duties, as well as the cleaning of plant and equipment. This competency is typically demonstrated by all operators working either independently or as part of a work team.

Application of the Unit

Application of this unit

This competency applies to personnel who are required to keep the work area, plant and equipment clean and tidy. The key factors are the identification, scheduling and performance of housekeeping requirements. This may include:

- identifying the range and scope of work required
- checking if any type of permit has been issued for the work
- knowing site safety and housekeeping standards
- adequately preparing to undertake the work, including obtaining all necessary safety equipment and PPE
- scheduling housekeeping duties
- handling chemicals and solvents safely
- keeping assigned plant and equipment clean.
- undertaking the work strictly in accordance with the provisions of any permit
- completing work in accordance with requirements
- moving work and waste materials to designated locations
- querying or raising matters about the scope of work if it varies from that normally undertaken
- completing the work in accordance with procedures and obtaining appropriate sign off as required.
-

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Identify housekeeping requirements.	1.1 Explain and understand site safety and housekeeping standards. 1.2 Undertake housekeeping inspection in accordance with procedures/work instructions. 1.3 Identify and schedule housekeeping requirements as appropriate.
2. Perform general housekeeping duties.	2.1 Keep designated work areas clean to organisation specific standards. 2.2 Keep designated work areas clear of obstructions. 2.3 Handle and use chemicals and solvents as per the manufacturer guidelines and company specifications. 2.4 Ensure work area is ready for next user. 2.5 Remove work materials to designated locations.
3. Clean plant and equipment.	3.1 Keep assigned plant and equipment clean following established organisation procedures. 3.2 Perform specialised cleaning procedures as required. 3.3 Ensure that appropriate personal protective equipment is used as required.
4. Dispose of waste materials.	4.1 Correctly identify waste materials. 4.2 Remove waste materials to a designated location.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Knowledge and understanding of the process sufficient to recognise non-standard situations and then determine an appropriate action which is consistent with operating guidelines. Knowledge of organisation standard procedures and work instructions and relevant regulatory requirements, along with the ability to implement them within appropriate time constraints and in a manner relevant to the operation of the process.

Competence includes the ability to:

- apply and describe:
- duty of care
- requirements for housekeeping process
- procedures for plant maintenance
- safe handling procedures
- the standard of cleanliness required.
- distinguish between:
- re-usable materials and waste
- routine and special cleaning needs.
- plan own work, including predicting consequences and identifying improvements
- use PPE
- safely handle products and materials
- read relevant safety information and apply safety precautions appropriate to the task/ relevant to the practical operation of the process.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and material labels as provided to operators.

Writing is required to the level of completing workplace forms.

Basic numeracy is required, e.g. to determine that two 25 kg bags are needed to make up a requirement for 50 kg.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to recognise and analyse potential situations requiring action and then in implementing appropriate corrective action.

Consistent performance should be demonstrated. For example, look to see that:

- early warning signs for work areas in need of cleaning are recognised
- work areas are kept tidy and clean
- equipment and/or materials is/are neatly stored, in a safe manner, in the correct location at all times when not in use
- equipment is always tidy and safe when in use.

Assessment method and context

Assessment will occur using industrial equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- in the operation of all ancillary equipment to the level required for this competency unit
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency unit may vary between organisations depending upon a range of practices and procedures, with consideration given to plant configuration and process.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- cleaning equipment and materials
- brooms
- shovels
- solvents
- waste containers
- safety equipment.

Hazards

Typical hazards include:

- materials or equipment obstructing work areas
- heat, smoke, dust or other atmospheric hazards
- sharp edges, protrusions or obstructions
- limited head spaces or overhangs
- equipment or product mass
- slippery surfaces, spills or leaks
- noise, rotational equipment or vibration

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'.

Typical process and product problems may include:

- correct equipment not immediately available
- safety issues associated with housekeeping and/or cleaning
- ensuring that process aids rather than interferes with production.

Variables

Key variables to be monitored include:

- housekeeping and/or cleaning methods and procedures
- the type of tools and equipment used in special situations
- the use of personal protective equipment.
- correct use of tools
- waste collection and disposal
- conformance with frequency and quality of organisational reporting requirements
-

Unit Sector(s)

Not applicable.

MSAPMSUP382A Provide coaching/mentoring in the workplace

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the skills and knowledge required to act as a mentor/coach to other individuals in the workplace. Coaching and mentoring are undertaken within the coach/mentor's area of expertise on a one on one basis.

The mentoring/coaching process applies to any area of the business or professional endeavours such as acquisition of specific business competencies, progress with overall business development, individual and personal development.

Application of the Unit

Application of this unit

This competency is typically performed by senior operators or team leaders who have significant workplace experience. At all times they would be liaising with relevant personnel when undertaking the coaching/mentoring role.

The coach/mentor would:

- facilitate the exploration of needs, motivations and thought processes to assist the individual in identifying areas for development
- observe, listen and ask questions to identify the employee's situation
- use questioning techniques to identify solutions and actions rather than take a directive approach
- support the employee in setting appropriate goals and methods of assessing progress in relation to goals
- provide encouragement, support and constructive feedback
- apply tools and techniques which may include one on one training, facilitating, counselling and networking
- evaluate outcomes of process to ensure the employee is achieving goals.
-

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Individual enterprises may choose to add prerequisites and co-requisites relevant to their processes.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA
1. Establish coaching/ mentoring relationship.	<p>Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.</p> <p>1.1 Identify areas for development in line with organisational and individual's requirements.</p> <p>1.2 Use effective communication styles to develop trust, confidence and rapport.</p> <p>1.3 Make agreements on how the relationship will be conducted, including:</p> <ul style="list-style-type: none"> • the amount of time involved for both parties • confidentiality of information • identification of development opportunities • development plan towards achieving goals. <p>1.4 Discuss and clarify expectations and goals.</p> <p>1.5 Seek input from other relevant personnel if required.</p>
2. Provide coaching/ mentoring support.	<p>2.1 Assist the individual to identify and evaluate opportunities to achieve agreed goals/development activities.</p> <p>2.2 Share personal experiences and knowledge with the individual to assist in progress to agreed goals/development.</p> <p>2.3 Provide a supportive environment to allow the individual to develop towards the achievement of goals.</p> <p>2.4 Encourage the individual to make decisions and take responsibility for the courses of actions or solutions under consideration.</p> <p>2.5 Provide assistance and guidance in a manner which allows the individual to retain responsibility for achievement in their goals.</p>
3. Evaluate effectiveness of coaching/mentoring.	<p>3.1 Recognise and openly discuss changes in the coaching/mentoring relationship.</p> <p>3.2 Make adjustments to the relationship to take account of the needs of both the mentor/coach and the individual.</p> <p>3.3 Seek feedback from individual and other relevant personnel to identify and implement improvements.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Knowledge of the principles of coaching and mentoring for development of competence. Knowledge of organization standard procedures and work instructions and relevant regulatory requirements along with the ability to apply them to the coaching/mentoring process. Competence also includes the ability to:

- work effectively with individuals who have diverse work styles, aspirations, cultures and perspectives
- use effective methods of coaching/mentoring
- apply organisation policies, procedures and plans
- apply methods and techniques for eliciting and interpreting feedback
- explain relevant career paths and competency standards in the organisation
- apply methods for identifying development opportunities
- use effective planning skills to organise activities
- give, receive and analyse feedback effectively

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret organisation requirements which may be included in:

- quality assurances and/or procedures manuals
- goals, objectives, plans, systems and processes
- legal and organisational policy/guidelines and requirements
- OHS policies, procedures and programs
- confidentiality and security requirements
- business and performance plans
- anti-discrimination and related policy
- access and equity principles and practice
- ethical standards
- quality and continuous improvement processes and standards.

Writing is required to the level of completing records and reports.

Numeracy is required to the extent required by work instructions and procedures.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that an understanding of mentoring/coaching and its role and benefits is understood. Competence must be demonstrated in communication skills in relation to listening, questioning, providing constructive feedback and non-verbal communication. Consistent performance should be demonstrated, in particular:

- an understanding in the role and benefits of mentoring/coaching in the business
- use of significant workplace knowledge and experience to assist another individual to achieve their goals/development needs
- application of effective communication styles
- effectively creating a learning environment that allows for open discussion, feedback, tolerance of mistakes during learning, within a safe environment, and affirmation of the individual's worthiness.

Assessment method and context

Assessment will occur on-the-job or in a simulated workplace.

Competence in this unit may be assessed:

- by observation or questioning to indicate understanding
- in a situation allowing the generation of evidence of the ability to respond to problems
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to all work environments in the process manufacturing industries.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- relevant process equipment, components and auxiliary equipment
- PPE.

Hazards

Typical workplace hazards include:

- chemicals and hazardous materials
- gases and liquids under pressure
- moving machinery
- materials handling
- working at heights, in confined spaces, or in environments subjected to heat, noise, dusts or vapours.

Problems

Anticipate and solve problems means resolve a wide range of routine and non-routine problems, using product and process knowledge to develop solutions to problems which do not have a known solution/a solution recorded in the procedures.

Typical problems may include:

- lack of materials and resources
- conflicting work priorities
- time constraints.
- lack of cooperation
- lack of willingness to receive feedback

Appropriate action for non-routine problems may include reporting to designated person or other action specified in the procedures.

Unit Sector(s)

Not applicable.

MSAPMSUP400A Develop and monitor quality systems

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the establishment, maintenance and evaluation of quality systems for a complete production area and/or plant.

Application of the Unit

Application of this unit

This competency is typically performed by an experienced technician, leading hand or supervisor. It includes:

- developing and implementing quality systems
- identifying and maintaining documentation for the quality systems
- implementing training programs
- evaluating the quality system and making improvements where necessary.
-

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Establish and maintain framework for successful quality system.	1.1 Develop relevant policies which demonstrate the commitment of the enterprise to quality and a culture of improvement. 1.2 Define and allocate responsibilities in quality system. 1.3 Consult with key personnel to define role of procedures in the quality system. 1.4 Seek and provide financial and human resources to allow thorough implementation of quality system. 1.5 Develop system for communicating quality message and culture in the organisation.
2. Establish and maintain quality documentation system.	2.1 Identify quality documentation required, including records of improvement plans and initiatives. 2.2 Prepare and maintain quality documentation and keep data records. 2.3 Maintain document control system.
3. Implement structured training program in accordance with quality system requirements.	3.1 Analyse roles and duties of relevant personnel. 3.2 Identify training needs in relation to quality. 3.3 Identify training programs to meet these needs. 3.4 Implement the training program. 3.5 Develop and maintain training records.
4. Evaluate the quality system.	4.1 Undertake regular audits of the quality system, its policies and procedures. 4.2 Develop new procedures/work instructions as required. 4.3 Implement improvements in the quality system.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Knowledge and understanding of organisation quality systems and appropriate national and international quality standards and protocols.

Knowledge of the relevant OHS and environmental requirements and detailed knowledge of enterprise standard operating procedures is required.

An appreciation of business goals and key performance indicators is required as a basis for decision making and action.

Competence to include the ability to apply and explain the principles of:

- process improvement
- policy and procedure development
- data management and documentation.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret quality procedures and work instructions, quality manuals, equipment manuals as is applicable to developing quality systems and procedures.

Writing is required to the level of developing quality documentation.

Numeracy is also required, eg to analyse quality data or charts.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- effectively maintain and evaluate quality systems carried out
- implement relevant staff training programs
- produce adequate quality documentation including policies and procedures.

Consistent performance should be demonstrated. For example, look to see that:

- the development, implementation and evaluation of the quality system runs smoothly
- all safety procedures are always followed.

Assessment method and context

Assessment will occur in a work-like environment.

Competence in this unit may be assessed:

- in a situation allowing the generation of evidence of the ability to recognise, anticipate and solve problems
- by using a suitable simulation and/or a range of case studies/scenarios
- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to a wide range of processes and equipment in all work environments and sectors in the process manufacturing industries.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of workplace documentation such as:

- organisational policies
- quality manuals
- standard operating procedures and work instructions
- company business objectives
- key performance indicators).

Quality audits and evaluations may be undertaken as an individual or as part of a team.

Hazards

Typical hazards include leaks, spillages and equipment hazards that can occur during the walk-through of an operating plant or factory.

Problems

Typical problems may include:

- lost documentation
- maintaining updated documents
- staff not following procedures
- poor communication.
-

Unit Sector(s)

Not applicable.

MSL904001A Perform standard calibrations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the ability to calibrate test and measurement equipment in accordance with standard calibration procedures and documented test methods. These procedures/methods specify all associated reference standards, materials, equipment and methods to be used and the required parameters or quantities and ranges to be tested, including the criteria for rejection or approval.
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Application of the Unit

Application of the unit	<p>This unit of competency is applicable to laboratory and calibration technicians who carry out tests and/or calibrations using standard calibration methods in first, second and third party laboratories, and laboratories where testing and/or calibration forms part of inspection or product certification. Personnel are not permitted to deviate from explicit instructions in any manner, modify the procedure, nor substitute alternative equipment. They work under limited supervision and results of their work are interpreted and checked by the laboratory supervisor, quality inspector or designated signatory.</p> <p>Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These are found at the end of this unit of competency under the section 'This competency in practice'.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare items for calibration	1.1. Select the authorised calibration procedure in accordance with enterprise procedures 1.2. Identify hazards and use appropriate personal protective equipment, safety equipment and procedures 1.3. Confirm all measuring equipment meets the laboratory's specification requirements and complies fully with the calibration procedure 1.4. Assemble and set up specified reference standards and associated equipment prior to testing 1.5. Verify performance of reference standards and measuring equipment prior to use and adjust or calibrate as necessary 1.6. Identify and minimise potential sources of measurement error
2. Perform calibration	2.1. Perform individual tests without variance according to the documented procedure to ensure repeatability of measurement 2.2. Confirm readings are the result of a valid measurement and record data as required (as-found or before adjustment) 2.3. Adjust device under test to bring readings within specification and record data (as-left or after adjustment) if required 2.4. Analyse resulting test data to detect trends or inconsistencies that would significantly affect the accuracy or validity of test results 2.5. Seek appropriate advice when interpretation of results is outside authorised scope of approval
3. Document results	3.1. Document compliance/non-compliance with requirements of test and/or specifications 3.2. Estimate and document uncertainty of measurement in accordance with enterprise procedures, if required 3.3. Record the results of each test/calibration accurately, unambiguously and objectively 3.4. Ensure confidentiality of enterprise information
4. Finalise calibration	4.1. Prepare and issue a final report on the job/item detailing testing carried out, traceability, statement of compliance and relevant information as required 4.2. Report any non-compliance and verify next course of

ELEMENT	PERFORMANCE CRITERIA
	action with supervisor 4.3. Attach calibration labels, equipment stickers, quality control tags and tamper resistant seals as required in enterprise procedures 4.4. Store test equipment/measurement standards and results in accordance with enterprise procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- selecting and applying appropriate test methods and calibration procedures
- maintaining close attention to procedures, accuracy and precision of measurement to ensure the integrity of test/calibration results
- using calibration and correction charts
- calculating to give results in appropriate accuracy, precision and units
- preparing test/calibration documentation that is accurate and complies with requirements
- operating equipment correctly and safely
- recognising problems or departures in systems and documentation and initiating actions to prevent or minimise them
- recognising and report opportunities for improvements to procedures

Required knowledge

Required knowledge includes:

- purpose of metrology and calibration, including common terminology, concepts, principles, procedures, and applications
- National Association of Testing Authority's (NATA) and National Measurements Institute's (NMI) role in the measurement and testing system in Australia
- traceability, including legal requirements for traceability
- requirements for the competence of testing and calibration laboratories (e.g. AS ISO/IEC 17025) as they affect job role and responsibilities
- hierarchy and appropriate selection of reference materials and instruments
- non-conformance/non-compliance procedures and protocols associated with equipment, reference material and calibration procedures
- troubleshooting procedures for equipment and test methods
- methods for statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement (may include the use of software)
- reporting procedures and legislative requirements
- handling, transport, storage and operation of reference and working standards
- laboratory environmental control requirements
- relevant health, safety and environmental requirements
- layout of the enterprise, divisions and laboratory
- organisational structure of the enterprise
- lines of communication
- role of laboratory services for the enterprise and customers

REQUIRED SKILLS AND KNOWLEDGE

Specific calibration fields

Additional knowledge requirements may apply for different calibration fields. For example, testing and calibrations conducted in the following:

- acoustic and vibration measurement
- chemical testing
- construction materials testing
- electrical testing
- heat and temperature measurement
- mechanical testing
- metrology
- non-destructive testing
- optics and radiometry
- pressure measurements

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • maintain very close attention to procedures, accuracy and precision of measurement to ensure integrity of test/calibration results (especially during lengthy tests) • critically examine each calibration step to ensure repeatability and validity of data • apply all relevant procedures and regulatory requirements to ensure the quality and integrity of the services or data provided • prepare test/calibration documentation that is accurate and complies with requirements • operate equipment correctly and safely • recognise problems or departures in systems and documentation and initiate actions to prevent or minimise them • recognise and report opportunities for improvements to procedures.
Context of and specific resources for assessment	<p>This unit of competency is to be assessed in the workplace or simulated workplace environment.</p> <p>This unit of competency may be assessed with:</p> <ul style="list-style-type: none"> • <i>MSL924001 Process and interpret data</i> • <i>relevant MSL974000 series unit of competency</i> • <i>relevant MSL975000 series unit of competency.</i> <p>Resources may include:</p> <ul style="list-style-type: none"> • specialised calibration/test equipment, reference standards and laboratory facilities • access to a library of calibration methods, procedures and equipment specifications • enterprise quality manual and procedures.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • review of calibration results, uncertainty calculations and workplace documentation completed by the

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	<p>candidate</p> <ul style="list-style-type: none"> • feedback from supervisors and/or customers regarding quality of calibration services provided by the candidate • observation of the candidate performing standard calibrations • oral or written questioning to check underpinning knowledge of standard calibration procedures. <p>In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p> <p>Access must be provided to appropriate learning and/or assessment support when required.</p> <p>The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work like environment.</p>
This competency in practice	<p>Industry representatives have provided the case studies below to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting.</p> <p>Background</p> <p>Calibration work may be simple or highly complex depending upon the type of equipment being calibrated and the accuracy or uncertainties required. Manual calibrations may involve interconnecting equipment and setting the stimulus devices to the settings listed in the procedure. At each setting, the technician must verify that the response or output of the unit under test (UUT) is within the tolerances specified in the procedure. In addition, many procedures require that 'as-found' (before adjustment) and 'as-left' (after adjustment) results are recorded for maintaining the UUT documentation history.</p> <p>Often calibration technicians must assess and document the total uncertainties for a given measurement by analysing equipment specifications and methodology</p>

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during calibration. They have to interpret specifications and technical information and demonstrate initiative when adjusting and repairing instruments.

The calibration technician's workload can be routine and repetitive. A perpetual backlog of work and the constant need to reduce turn-around-time to meet client demands, coupled with enterprise productivity goals, can induce stress and mental fatigue if not carefully managed.

However, it is essential that all personnel are able to perform tests and associated work tasks without undue pressure that might influence technical judgement if 'integrity of measurement' is to be retained. Errors arising from items incorrectly calibrated will, at best, have to be recalled which wastes time, resources and destabilises enterprise credibility. At worst, if undetected, they may have severe safety implications to personnel or equipment, depending on the nature of the item.

Calibration (1)

A customer delivers a test pressure gauge and requires certification that the gauge conforms to manufacturer's specifications. Personnel in the item reception area log the job and the laboratory supervisor assigns it to a calibration technician. He/she reads the work order and retrieves the approved calibration procedure. The procedure requires the customer's gauge to be tested to 1000 kPa using a hydraulic test station. The technician assembles the required apparatus and personal protective equipment. The gauge is visually inspected for defects and contamination. The temperature of the environment is checked and the hydraulic test station confirmed as fully operational. The required pressures are applied to the gauge and the indicated readings are transcribed onto the test report. The technician notes that some readings are outside the allowable tolerance and adjustments will have to be made. He/she takes another set of readings after making the necessary adjustments and records them on the report. The technician applies the required labels to the gauge, updates the database, produces a test report and places the item on the quality assurance bench for inspection by the supervisor. The supervisor visually inspects the item and checks the readings on the report. The job has taken two hours to complete.

Calibration (2)

A client has asked the laboratory to calibrate a spectrum

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analyser to manufacturer's specification. The supervisor assigns the job to a calibration technician who reads the job sheet and locates the appropriate calibration procedure. Although this spectrum analyser will be calibrated partly with the aid of automated technology, the technician estimates that the calibration will still take about nine hours to complete. The technician reads the procedure and assembles the equipment and allows for the required warm-up time for instrument stabilisation. Possible sources of error are minimised by cleaning connectors and tensioning them with the torque spanner. The technician performs the manual phase of the test and manually records 12 pages of results. The equipment is reconnected for the automated part of the procedure the test recommenced. The technician produces a further six pages of results. These are assessed for errors and non-conformances and all calculations are carefully checked. A final report is produced which accompanies the spectrum analyser to the quality assurance bench for checking by the supervisor. All cables and equipment used for the calibration are returned to the store.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Codes of practice

Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected the latest version will be used

Standards, codes, procedures and/or enterprise requirements

Standards, codes, procedures and/or enterprise procedures may include:

- Australian and international standards, such as:
 - AS ISO 17025-2005 General requirements for the competence of testing and calibration laboratories
 - AS/NZS ISO 9001:2008 Quality management systems - Requirements
 - AS/NZS ISO 10005:2006 Quality management systems - Guidelines for quality plans
 - AS/NZS ISO 10012:2004 Quality assurance requirements for measurement equipment
 - ISO 5725 Accuracy (trueness and precision) of measurement methods and results
 - ISO/IEC Guide 98-3:2008 Uncertainty of measurement - Part 3 Guide to the expression of uncertainty in measurement (GUM)
- Eurachem/CITAC Guide CG4 Quantifying uncertainty in analytical measurement
- material safety data sheets (MSDS)
- enterprise recording and reporting procedures and standard operating procedures (SOPs)
- quality manuals, equipment and operating/technical manuals
- test methods and calibration procedures (validated and authorised)
- test methods and calibration procedures

RANGE STATEMENT	
	<p>published by international, national or regional standards, reputable technical organisations, scientific texts or journals and equipment manufacturers</p> <ul style="list-style-type: none"> • incident and accident/injury reports • schematics, work flows, laboratory layouts and production and laboratory schedules
Standard calibrations	<p>Standard calibrations may include testing and/or calibrating the following equipment and reference materials using standard methods and procedures:</p> <ul style="list-style-type: none"> • test equipment, such as anemometers, balances, barometers, calipers, environmental chambers, hygrometers, manometers, masses, micrometers, pressure equipment, spectrophotometers, tape measures, rules, temperature (digital) indicating systems, thermometers, thermocouples, timing devices, vibration analysis equipment and weighing instruments • electrical reference standards, such as air-lines, analogue meters, attenuators, bridges-manual balance, capacitors, DC voltage references, digital instruments (calibrators, DMMs, electronic transfer standards), inductors, instrument and ratio transformers, instrument transformer test sets, potentiometers, resistors, radio frequency (RF) power meters, RF thermistor mounts and thermal converters, shunts, time interval and frequency standards, transfer standards AC-DC, voltage dividers, volt ratio boxes and watt-hour references • working standards, instruments and testing equipment, such as electromagnetic compatibility (EMC) test equipment, field strength meters, flammability test equipment, gauges/test fingers/test pins, hipot testers, impact hammers, impulse testers, instrument calibrators, network analysers, signal generators and spectrum and harmonic analysers
Hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • electric shock • disturbance or interruption of services

RANGE STATEMENT	
	<ul style="list-style-type: none"> • manual handling of heavy equipment boxes • sources of electromagnetic radiation (lasers and RF generators/transmitters) • fluids under pressure • heat sources, such as ovens
Safety procedures	<p>Safety procedures may include:</p> <ul style="list-style-type: none"> • use of personal protective equipment, such as hearing protection, gloves, safety glasses and coveralls • ensuring access to service shut-off points • handling and storing hazardous materials and equipment in accordance with labels, MSDS, manufacturer's instructions, and enterprise procedures and regulations • regular cleaning of equipment and work areas
Reference materials	<p>Reference materials may include:</p> <ul style="list-style-type: none"> • colour standards • graded granular materials • hardness blocks
Communication	<p>Communication may be with:</p> <ul style="list-style-type: none"> • supervisors and managers (laboratory, quality and customer service) • peers and other laboratory or relevant technical personnel • clients and end users of equipment • external auditors, or accreditation agency for example, NATA • manufacturers of equipment and suppliers of spare parts and materials
Working environment	<p>The working environment will have a controlled environment but may include:</p> <ul style="list-style-type: none"> • purpose-built designed facility • mobile facility in the field
Occupational health and safety (OHS) and environmental management requirements	<p>OHS and environmental management requirements:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these

RANGE STATEMENT	
	<p>requirements must not be compromised at any time</p> <ul style="list-style-type: none"> • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health

Unit Sector(s)

Unit sector	Calibration
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Competency field

Competency field	
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Co-requisite units

Co-requisite units	

MSL973001A Perform basic tests

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the ability to perform tests and measurements using standard methods with access to readily available advice from supervisors.
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Application of the Unit

Application of the unit	<p>This unit of competency is applicable to laboratory/field assistants working in all industry sectors. In general, they do not calibrate equipment and make only limited adjustments to the controls. They do not interpret or analyse results or troubleshoot equipment problems.</p> <p>Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These are found at the end of this unit of competency under the section 'This competency in practice'.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Interpret test requirements	1.1. Review test request to identify samples to be tested, test method and equipment involved 1.2. Identify hazards and enterprise controls associated with the sample, preparation methods, reagents and/or equipment
2. Prepare sample	2.1. Record sample description, compare with specification, record and report discrepancies 2.2. Prepare sample in accordance with appropriate standard methods
3. Check equipment before use	3.1. Set up test equipment in accordance with test method 3.2. Perform pre-use and safety checks in accordance with enterprise procedures and manufacturer's instructions 3.3. Identify faulty or unsafe equipment and report to appropriate personnel 3.4. Check calibration status of equipment and report any out of calibration items to appropriate personnel
4. Perform tests on samples	4.1. Identify, prepare and weigh or measure sample and standards to be tested 4.2. Conduct tests in accordance with enterprise procedures 4.3. Record data in accordance with enterprise procedures 4.4. Perform calculations on data as required 4.5. Identify and report out of specification or atypical results promptly to appropriate personnel 4.6. Shut down equipment in accordance with operating procedures
5. Maintain a safe work environment	5.1. Use established safe work practices and personal protective equipment to ensure personal safety and that of other laboratory personnel 5.2. Minimise the generation of wastes and environmental impacts 5.3. Ensure safe disposal of laboratory and hazardous wastes 5.4. Clean, care for and store equipment and reagents as required

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- interpreting enterprise procedure or standard methods accurately
- using safety information, such as material safety data sheets (MSDS) and performing procedures safely
- checking test equipment before use
- completing all tests within required timeline without sacrificing safety, accuracy or quality
- calculating, recording and presenting results accurately and legibly
- maintaining security, integrity and traceability of all samples, data/results and documentation
- cleaning and maintaining equipment

Required knowledge

Required knowledge includes:

- concepts of metrology
- the international system of units (SI)
- purpose of test
- principles of the standard method
- pre-use equipment checks
- relevant standards/specifications and their interpretation
- sources of uncertainty in measurement and methods for control
- enterprise and/or legal traceability requirements
- interpretation and recording of test result, including simple calculations
- procedures for recognition/reporting of unexpected or unusual results
- relevant health, safety and environment requirements

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • accurately interpret enterprise procedures or standard methods • complete all tests within the required timeline without sacrificing safety, accuracy or quality • demonstrate close attention to the accuracy and precision of measurements and the data obtained • maintain the security, integrity and traceability of all samples, data/results and documentation.
Context of and specific resources for assessment	<p>This unit of competency is to be assessed in the workplace or simulated workplace environment.</p> <p>This unit of competency may be assessed with:</p> <ul style="list-style-type: none"> • <i>MSL922001A Record and present data.</i> <p>Resources may include:</p> <ul style="list-style-type: none"> • standard laboratory equipped with appropriate equipment standards and materials • enterprise procedures and standard methods, and equipment manuals • MSDS.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • review of the quality of test data/results achieved by the candidate over time • inspection of records and workplace documentation completed by the candidate • feedback from peers and supervisors • observation of the candidate performing a range of basic tests • oral or written questioning to check underpinning knowledge of test procedures. <p>In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess</p>

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	<p>directly.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p> <p>Access must be provided to appropriate learning and/or assessment support when required.</p> <p>The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work like environment.</p>
This competency in practice	<p>Industry representatives have provided the case studies below to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting.</p> <p>Manufacturing</p> <p>Standard testing methods may be viewed as legal requirements that must be followed to ensure that a product manufactured in a chemical plant meets the specification by which it is sold to the customer. Technical assistants perform tests in a quality control laboratory to ensure that material meets legal requirements and the material is safe and effective in use. Peroxides may be present in ether as a result of light-catalysed air oxidation. Peroxides are toxic and can give rise to mixtures which are explosive when distilled. Technical assistants test ether to ensure that the level of peroxide is within acceptable limits. The test is done by shaking ether with a solution of potassium iodide. After standing for 30 minutes in the dark the yellow colour of the aqueous phase, due to the liberation of iodine, must not be more intense than a prepared standard solution. These tests ensure the quality and safety of the ether.</p> <p>Food processing</p> <p>A snack food company produces a range of high quality, impulse purchase snack foods. Some of these products are moisture and/or oxygen sensitive and are therefore packaged in multi-layer flexible packaging to provide optimum shelflife. The packaging must also be able to withstand the rigours of the production and distribution process. While the packaging is purchased to meet the shelflife and distribution specifications, the quality</p>

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assurance program requires the periodic evaluation of the packaging materials against these specifications. A laboratory assistant uses standard methods to test the tearing resistance, bursting strength, impact resistance and permeability and/or leakage of the snack food packaging. Tests are also conducted on aspects of the manufacturing process that can affect shelflife. These tests involve the measuring of the heat-seam strength and the sealing performance of the closure process. The test results are recorded by the laboratory assistant to verify the conformance of the materials to the supplier specifications and of the process to the manufacturing specifications. The assistant reports any anomalies or non-conformances to the appropriate personnel.

Construction materials testing

A technician performs an Aggregate Stripping Test (AS 1141.50) and enters the results in the laboratory's information management system (LIMS). The resulting 20-30% stripped values (i.e. 70-80% adhering) indicate a 'fail' result. The technician notes that he has repeated the test and obtained the same 'fail' result. The laboratory manager reviews the results and asks the technician to explain how he performed the test. He describes how he prepared 3-4 mm thick plates of bitumen and binding agent in the mould and then placed 50 small clean pieces of aggregate on top. After treatment in an oven for 24 hours and a 50°C water bath in accordance with the test method, the technician had then carefully pulled out the pieces of aggregate and avoiding any twisting motion. He then estimated the % of bitumen adhering to each of the stones with the expectation that the stripped value would be about 5% (i.e. 95% adhering). The manager is satisfied that the technician has performed the test in accordance with the method and suggested that he now re-run the test with a known aggregate as a control. This test gives a stripped value of 5-7% (i.e. 93-95% adhering). The manager is now sufficiently confident of the laboratory's results to sign and issue the test report and explain the aggregate's 'test failure' to the client.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Codes of practice

Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected the latest version will be used

Standards, codes, procedures and/or enterprise requirements

Standards, codes, procedures and/or enterprise requirements may include:

- Australian and international standards, such as:
 - AS ISO 1000-1998 The international system of units (SI) and its application
 - AS ISO 17025-2005 General requirements for the competence of testing and calibration laboratories
 - AS/NZS 2243 Set:2006 Safety in laboratories set
- Australian code of good manufacturing practice for medicinal products (GMP)
- calibration and maintenance schedules
- enterprise recording and reporting procedures
- equipment manuals
- equipment startup, operation and shutdown procedures
- MSDS and safety procedures
- material, production and product specifications
- national measurement regulations and guidelines
- principles of good laboratory practice (GLP)
- production and laboratory schedules
- quality manuals
- standard operating procedures (SOPs)

Concepts of metrology

Concepts of metrology may include:

- that all measurements are estimates
- measurements belong to a population of measurements of the measured parameters

RANGE STATEMENT	
	<ul style="list-style-type: none"> • repeatability • precision • accuracy • significant figures • sources of error • uncertainty • traceability
Preparation of samples	<p>Preparation of samples may include:</p> <ul style="list-style-type: none"> • sub-sampling or splitting using procedures, such as riffing, coning and quartering, manual and mechanical splitters • diluting samples • physical treatments, such as ashing, dissolving, filtration, sieving, centrifugation and comminution • moulding, casting or cutting specimens
Typical tests carried out by laboratory/field assistants	<p>Typical tests carried out by laboratory/field assistants may include:</p> <ul style="list-style-type: none"> • visual/optical tests of appearance, colour, texture, identity, turbidity, refractive index (alcohol content and Baume/Brix) • physical tests: <ul style="list-style-type: none"> • density, specific gravity and compacted density • moisture content and water activity • particle size, particle shape and size distribution • chemical tests: <ul style="list-style-type: none"> • gravimetric • colorimetric • electrical conductivity (EC) and pH • specific ions using dipsticks and kits • nutrients (e.g. nitrates and orthophosphates) using basic kits • ashes, including sulphated ashes • biological/environmental tests: <ul style="list-style-type: none"> • pH, oxygen reduction potential (ORP), dissolved oxygen (DO) and (EC) • E coli using test kits

RANGE STATEMENT	
	<ul style="list-style-type: none"> • surface hygiene/presence of microbes • packaging tests: <ul style="list-style-type: none"> • tearing resistance, bursting strength and impact resistance • permeability and/or leakage • mechanical tests: <ul style="list-style-type: none"> • Emerson class • concrete slump
Measurements	<p>Measurements may include:</p> <ul style="list-style-type: none"> • simple ground surveys • meteorological parameters, such as wind direction/strength, rainfall, maximum/minimum temperature, humidity and solar radiation • simple background radiation survey • production/process parameters, such as temperature, flow and pressure • gas levels in a confined space
Common measuring equipment	<p>Common measuring equipment may include:</p> <ul style="list-style-type: none"> • dimension apparatus • DO and EC • analogue and digital meters and charts/recorders • basic chemical and biological test kits • dipsticks and site test kits (e.g. HACK) • timing devices • temperature measuring devices, such as thermometers and thermocouples
Hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • electric shock • biohazards, such as microbiological organisms and agents associated with soil, air, water, blood and blood products, and human or animal tissue and fluids • solar radiation, dust and noise • chemicals, such as sulphuric acid, fluorides and hydrocarbons • aerosols • sharps, broken glassware and hand tools

RANGE STATEMENT	
	<ul style="list-style-type: none"> • flammable liquids • dry ice and liquid nitrogen • fluids under pressure • sources of ignition • occupational overuse syndrome, slips, trips and falls • manual handling, working at heights and working in confined spaces • crushing, entanglement and cuts associated with moving machinery or falling objects
Enterprise controls to address hazards	<p>Enterprise controls to address hazards may include:</p> <ul style="list-style-type: none"> • use of MSDS • use of signage, barriers and service isolation tags • use of personal protective equipment, such as hard hats, hearing protection, sunscreen lotion, gloves, safety glasses, goggles, face guards, coveralls, gowns, body suits, respirators and safety boots • use of appropriate equipment, such as biohazard containers and cabinets and laminar flow cabinets • recognising and observing hazard warnings and safety signs • labelling of samples, reagents, aliquoted samples and hazardous materials • handling and storage of all hazardous materials and equipment in accordance with labelling, MSDS and manufacturer's instructions, and enterprise procedures and regulations • cleaning and decontaminating equipment and work areas regularly using recommended procedures • following established manual handling procedures for tasks involving manual handling
Minimising environmental impacts	<p>Minimising environmental impacts may involve:</p> <ul style="list-style-type: none"> • recycling of non-hazardous waste, such as chemicals, batteries, plastic, metals and glass • appropriate disposal of hazardous waste • correct disposal of excess sample/test material • correct storage and handling of hazardous

RANGE STATEMENT	
	chemicals
Occupational health and safety (OHS) and environmental management requirements	<p>OHS and environmental management requirements:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health

Unit Sector(s)

Unit sector	Testing
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Competency field

Competency field	
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Co-requisite units

Co-requisite units	

PMAOHS211B Prepare equipment for emergency response

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This competency unit covers the preparation and minor servicing of equipment used to respond to emergency situations.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify emergency equipment.	1.1. Locate emergency equipment 1.2. Ensure access is provided to emergency equipment.
2. Inspect and assemble emergency equipment.	2.1. Inspect emergency equipment for faults or damage 2.2. Secure couplings/connections and operational condition 2.3. Assemble equipment in accordance with manufacturer specifications 2.4. Identify and report any missing or damaged components.
3. Carry out minor servicing of equipment.	3.1. Maintain and clean equipment according to specifications/procedures 3.2. Conduct servicing in accordance with specifications/procedures 3.3. Ensure equipment is 'made-ready' and stored in designated location 3.4. Ensure equipment functions in accordance with specifications.
4. Report and record equipment status.	4.1. Record and report equipment status 4.2. Raise maintenance requests as required 4.3. Undertake corrective actions as required.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills

- hand skills
- follow procedures
- observation
- completing records
- assembling and operating various pieces of emergency response equipment
- servicing various pieces of emergency response equipment
- storing various pieces of emergency response equipment.

Required knowledge

Knowledge and understanding of the emergency response procedures and equipment, sufficient to recognise standard and non-standard situations with regards to the equipment used, and then determine the appropriate action which is consistent with operating guidelines. These include:

- principles of operation of the emergency response equipment
- hazards policies and procedures
- emergency, fire and accident procedures.

Knowledge of the relevant OHS and environmental requirements, and enterprise standard operating procedures (SOPs), along with an ability to implement them in a manner that is relevant to emergency response practices. These include procedures for the use of personal protective clothing and equipment.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment of this unit should include demonstrated competence on actual plant and equipment in a work environment. The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations which will include disruptions to normal, smooth operation.</p> <p>Simulation may be required to allow for assessment of parts of this unit. Simulation should be based on the actual plant and will include walk-throughs of the relevant competency components. Simulations may also include the use of case studies/scenarios and role plays.</p> <p>This unit of competency requires a body of knowledge which will be assessed through questioning and the use of what-if scenarios both on the plant (during demonstration of normal operations and walk-throughs of abnormal operations) and off the plant.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Competence must be demonstrated in the ability to recognise and analyse potential situations requiring action and then in implementing appropriate action. The emphasis should be on the ability to minimise the affect of an emergency situation.</p> <p>Consistent performance should be demonstrated. In particular look to see that:</p> <ul style="list-style-type: none"> • early warning signs of equipment in need of servicing are recognised • equipment is always 'made ready' • equipment is always stored in the designated location at all times when not in use • access to equipment is available at all times when not in use. <p>These aspects may be best assessed using a range of scenarios/case studies/what ifs as the stimulus, with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and extreme situations that may have been generated from the past incident history of the plant, incidents on similar plants around the world, hazard analysis activities (eg HAZOP) and similar sources.</p>
<p>Context of and specific</p>	<p>Assessment will require access to an operating plant over an</p>

EVIDENCE GUIDE	
resources for assessment	extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations. A bank of scenarios/case studies/what ifs will be required as will a bank of questions which will be used to probe the reasoning behind the observable actions.
Method of assessment	In all plants it may be appropriate to assess this unit concurrently with relevant teamwork, OHS and communication units.
Guidance information for assessment	Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Range Statement

RANGE STATEMENT	
<p>The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.</p>	
Codes of practice/ standards	Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.
Context	This unit of competency includes all items of equipment that are required for emergency response.
Emergency response equipment	<p>Emergency response equipment may include:</p> <ul style="list-style-type: none"> • fire extinguishers • fire hoses • fire blankets • pumps • branches, fittings and nozzles • foam equipment/units • personal protective clothing • breathing apparatus • deluge/safety showers.
Functions	<p>Required functions include:</p> <ul style="list-style-type: none"> • inspections • visual • mechanical • servicing • lubrication • pressure checks • refilling • communication • maintenance • external authorities.
Hazards	<p>Hazards may include:</p> <ul style="list-style-type: none"> • chemicals and hazardous materials • gases and liquids under pressure • moving machinery • materials handling

RANGE STATEMENT	
	<ul style="list-style-type: none"> • working at heights, in restricted or confined spaces, or • environments subjected to heat, noise, dusts or vapours.
Emergency situations	<p>Emergency situations may include:</p> <ul style="list-style-type: none"> • accidents • fires • chemical or oil spills • gas leak or vapour emission • utilities failure • bomb scares.
Health, safety and environment (HSE)	<p>All operations to which this unit applies are subject to stringent health, safety and environment requirements, which may be imposed through State or Federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between Performance Criteria and HSE requirements, the HSE requirements take precedence.</p>

Unit Sector(s)

Unit sector	HSE
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		
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PSPPM402B Manage simple projects

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit covers management of generally low risk projects that may be small scale and managed by one person or a person with a small team. It includes implementing project start-up activities, coordinating project implementation, monitoring the project and arranging follow-up activities. Contract management requirements are not included as this aspect is addressed by units of competency within the Competency field of *Procurement and Contract Management*.

In practice, managing simple projects overlaps with other generalist and specialist work activities such as applying government processes, using resources, gathering information, managing contracts etc.

When this unit is completed in conjunction with *PSPPM401B Design simple projects* and *PSPPM403B Close simple projects*, the three units together are equivalent to the eight private sector Business Services project management competencies: BSBPM401A - BSBPM408A inclusive.

This unit, and unit *PSPPM405A Administer simple projects*, are mutually exclusive. One or the other, but not both, may contribute to a qualification.

This unit replaces and is equivalent to *PSPPM402A Implement projects*.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in *bold italics* is explained in the Range Statement following.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
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ELEMENT	PERFORMANCE CRITERIA
1. Implement start-up activities	<p>1.1 The <i>project plan</i> is updated with confirmed information for key dates and activities, resources and project governance details in accordance with the project implementation strategy</p> <p>1.2 Project <i>stakeholders'</i> understanding of and agreement to fulfil the project requirements and their roles and responsibilities are confirmed</p> <p>1.3 <i>Required systems</i> are established and maintained throughout the project in accordance with the project plan</p> <p>1.4 A working knowledge of <i>project management tools</i> is used to facilitate integration of project activities and achievement of project outcomes</p>
2. Coordinate project implementation	<p>2.1 <i>Integration and management</i> of project activities are handled in accordance with the project plan</p> <p>2.2 Stakeholder input and expectations are managed and their commitment is maintained throughout the life of the project in accordance with organisational policy and procedures and the project plan</p> <p>2.3 Disagreements and disputes are resolved or referred to a higher authority in accordance with organisational policy and procedures</p> <p>2.4 Project <i>change proposals</i> are received and changes are recommended/made in accordance with the project plan, and documented in accordance with <i>policy and procedures</i></p>
3. Monitor project	<p>3.1 All aspects of the project are continually monitored and corrective action is taken as necessary to maintain progress in accordance with the project plan</p> <p>3.2 Consultation and reporting mechanisms are applied in accordance with the communication plan when dealing with management, staff and/or contractors, steering committee members or other stakeholders</p> <p>3.3 Project governance plans and any related contracts are monitored, reviewed and amended as appropriate, and results are reported in accordance with the communication plan</p> <p>3.4 Project progress is monitored against agreed milestones in accordance with the project plan to provide a measure of performance throughout the life of the contract</p> <p>3.5 Programmed review of objectives and achievement is implemented in accordance with the project plan</p>
4. Arrange project follow-up activities	<p>4.1 Project deliverables are analysed against <i>specifications</i>, performance standards and project objectives, under broad guidance, and the results are reported to stakeholders</p> <p>4.2 An initial support package or product manual is produced, if</p>

ELEMENT

PERFORMANCE CRITERIA

required, to provide guidance for stakeholders who will be required to apply the project results

4.3 The support package includes options for stakeholders to take account of environmental and cultural factors in applying project results

4.4 Operational and support authorities are consulted to research any testing/trialling/building requirements resulting from the project, and evaluation of any recommendations are included in the project report

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

Skill requirements

Look for evidence that confirms skills in:

- leading and mentoring people to achieve project deliverables
- maintaining agreement of stakeholders and team members to timelines, roles and responsibilities
- communicating with stakeholders and team members using a range of communication styles to suit different audiences and purposes
- responding to diversity, including gender and disability
- using project management tools applicable to small scale or low risk projects
- applying ethical decision making and problem solving related to project management of small scale or low risk projects
- writing recommendations and preparing implementation support packages requiring precision of expression
- applying workplace safety procedures in line with project requirements
- accessing/preparing information electronically or in hard copy

Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- legislation, organisational policies and procedures that may impact on project management, for example:
 - public sector codes of ethics/conduct
 - occupational health and safety and environment requirements
 - project governance requirements
 - quality standards
 - risk management
 - procurement guidelines
 - human resources
 - equal employment opportunity, equity and diversity principles
- project management tools to suit a range of small scale or low risk projects
- project management principles
- organisational and political context

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit: *Nil*
- *Co-requisite* units that must be assessed with this unit: *Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment process include, but are not limited to:
 - PSPETHC401A Uphold and support the values and principles of public service
 - PSPGOV402B Deliver and monitor service to clients
 - PSPGOV403B Use resources to achieve work unit goals
 - PSPGOV411A Deal with conflict
 - PSPGOV412A Use advanced workplace communication strategies
 - PSPGOV422A Apply government processes
 - PSPLEGN401A Encourage compliance with legislation in the public sector
 - PSPPROC410A Administer contracts
 - PSPPM401B Design simple projects
 - PSPPM403B Close simple projects
- *Excluded units* that may not contribute to the same qualification as this unit:
 - PSPPM405A Administer simple projects

Overview of evidence requirements

- In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:
- the knowledge requirements of this unit
 - the skill requirements of this unit
 - application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
 - simple projects managed in a range of (3 or more) contexts (or occasions, over time)

Resources required to carry out assessment

- These resources include:
- legislation, guidelines, procedures and protocols relating to project management

EVIDENCE GUIDE

Where and how to assess evidence

- workplace project documentation
- scenarios and case studies
- examples of project management tools

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when implementing projects, including coping with difficulties, irregularities and breakdowns in routine
- simple projects managed in a range of (3 or more) contexts (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse backgrounds
- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- case studies
- demonstration
- portfolios
- questioning
- scenarios
- authenticated evidence from the workplace and/or training courses

For consistency of assessment

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments

Range Statement

RANGE STATEMENT

The Range Statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The Range Statement also provides a focus for assessment. It relates to the unit as a whole. Text in *italics* in the Performance Criteria is explained here.

Project plan will include some or all of

- acquisition strategies
 - budget and financial management strategy
 - contract management
 - cost estimates
 - evaluation criteria
 - expected outcomes/measurable benefits of the project
 - facilities
 - inclusions and exclusions from project
 - information/communication strategy
 - intellectual property strategies
 - milestones
 - objectives
 - outputs/project deliverables and their acceptance criteria
 - people plan including human resource management and human resource development
 - performance criteria/indicators
 - project control mechanisms
 - project implementation strategy
 - project governance strategy
 - purpose
 - quality assurance
 - quality control
 - quality standards for project
 - rationale
 - required project resources
 - resource management
 - risk management
 - roles and responsibilities
 - schedule/timeline
 - task/work breakdown structure (WBS)
- Stakeholders may include*
- project sponsor/funding bodies
 - clients or customers (internal and external)
 - industry

RANGE STATEMENT

- other agencies
 - general public
 - relevant interest groups
 - unions
 - functional areas
 - the organisation's senior management
 - Ministers
 - project team
 - steering committee members
 - end user
 - supplier/service provider
- Required systems for project management may include*
- planning and monitoring system
 - financial management including:
 - budget allocation/funding
 - income generated
 - expenditure
 - recordkeeping for documented information such as:
 - correspondence
 - quality data including survey, needs, test results
 - contracts
 - time allocated and spent on each aspect of the project
 - progress reports
 - performance reports against milestones
 - project outcomes
 - samples, prototypes, models
- Project management tools may include*
- risk analysis
 - organisational project governance framework
 - communications plan
 - reporting framework
 - project management software and other tools:
 - Gantt and bar charts
 - Program Evaluation and Review Technique (PERT) charts
 - Critical Path Method
 - cost schedule control system
 - logistics support analysis
 - life cycle cost analysis
 - spreadsheets
 - recording systems - electronic and manual
- Integration of project activities may include*
- scope
 - time

RANGE STATEMENT

- cost
 - quality
 - human resources
 - communications
 - risk
 - procurement
- Management may include*
- scope management
 - communication and reporting
 - schedule management
 - financial management
 - quality management
 - resources management
 - people management
 - logistics management
 - risk management
 - contract management
 - change management
- Change proposals may include*
- scope
 - administration
 - engineering, technical, technology changes
 - time
 - cost
 - resources
- Policy and procedures may include*
- government legislation (Federal, State and Local) affecting organisation's administration such as:
 - public sector management acts
 - financial management and accounting legislation and regulations
 - privacy legislation
 - government and organisational guidelines and procedures relating to:
 - project governance
 - resourcing
 - security
 - strategic plans
 - recruitment
 - risk management
 - procurement guidelines
 - designation approvals
 - industrial agreements

RANGE STATEMENT

Specifications may include

- functional
- technical
- performance
- material

Unit Sector(s)

Not applicable.

Competency field

Competency field Project Management

TAAASS501B Lead and coordinate assessment systems and services

Modification History

Not applicable.

Unit Descriptor

This unit specifies the competence required to provide leadership in assessment and to coordinate assessment validation and appeals processes.

Application of the Unit

Assessment leadership and coordination involves a complex mix of extending own and others expertise in assessment practice, guiding and leading assessors, monitoring assessment practice and taking responsibility for assessment validation and appeals processes.

This competence also involves developing and/or confirming the assessment strategy for an assessment only pathway. In a learning and assessment pathway, the assessment strategy is determined as part of the learning strategy documentation. In that context, this vocational outcome is addressed in **TAADES501B Design and develop learning strategies**.

This unit also includes coordinating and managing assessment across multiple sites, and managing partnership arrangements for assessment services. These performance outcomes may not be applicable in all workplace contexts, depending on the size, scope and needs of the training and/or assessment organisation.

Where this unit is undertaken as a single unit outside of the TAA50104 Diploma of Training and Assessment, learners must demonstrate competence in the following pre-requisite units:

TAAASS401C Plan and organise assessment

TAAASS402C Assess competence

TAAASS403B Develop assessment tools

TAAASS404B Participate in assessment validation.

Achievement of this unit requires high-level language, literacy skills and cognitive skills in planning, analysis, evaluation and synthesis. This unit also requires leadership skills.

Related competence includes preparing/managing budgets/financial plans, records management, recruitment selection and performance management. These are addressed through a number of relevant imported units from the **BSB01 Business Services Training Package**. These are listed at the end of this unit for possible integrated assessment purposes.

The competence specified in this unit is typically required by lead trainers/facilitators/teachers who assess, lead assessors, program/training and/or assessment coordinators, training managers and training consultants.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where **bold italicised** text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Develop and extend assessment expertise	1.1 Relevant and current research on assessment is accessed, read and incorporated into own and others' assessment practice
	1.2 Opportunities to extend assessment expertise are sourced and accessed and new/extended assessment skills and knowledge are incorporated into own and others' assessment practice
	1.3 A range of assessment methods is demonstrated in assessment practice
	1.4 Cognitive skills are used to guide and support quality assessment practice and address issues in assessment practice
	1.5 Ethical standards underpin assessment practice
	1.6 Reflection is used to explore and extend expertise in assessment
2 Lead assessment activities	2.1 Assessment strategies are developed and confirmed in assessment only pathways
	2.2 Roles, responsibilities and accountabilities of relevant persons in assessment are discussed and

confirmed

- 2.3 AQTF and organisational requirements relating to the competence of assessors are confirmed and documented
- 2.4 Where required, **partnership arrangements** are initiated and developed setting out identified roles, responsibilities and services to be provided
- 2.5 Strategies for communication and networking are established and maintained with and between assessors
- 2.6 **Leadership skills** are used to provide clear direction, advice and support to assessors
- 2.7 Professional development needs and opportunities for assessors are identified and recommendations made to relevant personnel

3 **Monitor assessment practice**

- 3.1 Assessment practice of assessors is systematically monitored in relation to:
 - how client/candidate needs are being met
 - how effectively and accurately the designated competency standards are being interpreted by assessors as the benchmarks for assessment
 - how the **principles of assessment** are being applied in assessment practice
 - assessors' application of assessment methods and assessment tools
 - how the **rules of evidence** are being applied in gathering evidence
 - whether assessment is being conducted in accord with the **policies and procedures** of the organisation's **assessment system**
 - whether organisational/legal/ethical requirements are being met
- 3.2 **Individual facilitation techniques** are used to guide and support assessors as they work and to improve assessment practice
- 3.3 Assessment records are analysed to ensure legal/organisational/ethical requirements are being met and appropriate advice is provided to improve

- record keeping arrangements where issues arise
- 4 **Coordinate assessment validation activities**
- 4.1 Assessment system policies and procedures relating to validation are accessed and interpreted, and **validation** is initiated in line with organisational/legal/ethical requirements
- 4.2 Risk assessment/analysis is undertaken to determine the **purpose, focus and context of validation activities**
- 4.3 **Approaches to validation** are considered and determined
- 4.4 Participants in validation are determined and/or confirmed, and **materials and resources** needed for validation activities are organised
- 4.5 Guidance and leadership is provided to direct and support participants throughout the validation process
- 4.6 **Validation documentation** is finalised and processed in accordance with assessment system/legal/organisational procedures and presented to relevant people, within an agreed timeframe
- 4.7 Recommendations from validation processes are identified and forwarded to the appropriate authority
- 5 **Manage assessment appeals**
- 5.1 Assessment system policies and procedures for assessment appeals are accessed and interpreted
- 5.2 Documented appeal claims are accessed, read and interpreted
- 5.3 Relevant parties to the appeal are interviewed, and negotiation skills are used to achieve resolution prior to formal appeal, where appropriate
- 5.4 Appeal panel is constituted and a timetable is set to hear unresolved claims
- 5.5 Guidance and leadership are provided to panel members and other parties during the appeal process to ensure fairness, equity, verity and relevance

- 5.6 **All documentation relevant to the appeal process** is checked for accuracy and completeness
- 5.7 **Panel decision** is confirmed and recorded in accordance with organisational policy and procedures, and outcomes are communicated to the parties

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of Assessment

To demonstrate competence against this unit candidates must be able to provide evidence that they have undertaken continuous development of own assessment expertise; provided leadership, direction and support to other assessors, including role-modelling good assessment practice; monitored the work of assessors and taken responsibility for initiating, organising and facilitating assessment validation and appeals processes; accurately interpreted the organisation's quality assurance goals and strategies

Evidence Requirements

Required knowledge includes:

competency-based assessment including:
vocational education and training as a competency-based system
assessment is criterion referenced/distinction to norm referenced assessment
criterion used in national VET is endorsed or accredited competency standards defining specifications for performance of work/work functions and skills/knowledge
reporting of competency-based assessment
competency standards as the basis of qualifications
the principles of competency-based assessment

the structure and application of competency standards
how to interpret competency standards and other related assessment information to determine the evidence needed to demonstrate competency including:
the components of competency
assessment of Employability Skills, dimensions of competency and OHS requirements

Training Package Assessment Guidelines the qualification level of units

AQTF requirement for assessment

the organisation's assessment system policies and procedures

different assessment methods, purposes and applications

appeals mechanisms within the organisation

different types of assessment tools, what tools work for what types of evidence, what are well-constructed assessment tools and why

what are the principles of assessment and how they guide assessment, validation, appeals processes

what are the rules of evidence, why are they important, particularly in a validation context

what is an assessment strategy and assessment plan and what are the components of assessment strategies and assessment plans

what is validation, purpose/focus of carrying out validation, different approaches to assessment validation and the critical aspects of validation

different activities and tools for validation and their appropriateness to the purpose/focus

a range of technology and its application to improve or assist in quality assessment

roles and responsibilities of workplace trainers/facilitators, assessors and others - such as vocational experts, workplace supervisors and support persons - in the assessment process, including OHS obligations and duty of care

strategies which ensure the assessment process is transparent and credible, such as:

identifying common pitfalls or errors that

affect judgement

open/ongoing communication between assessors

self-assessment

networking

professional development activities for assessors

ongoing contact with industry

using assessment panels or teams

conflict resolution techniques

motivating others

team and group roles and processes, such as:

monitoring progress against key goals

leading others

encouraging team contribution

legal, organisational and ethical responsibilities associated with the assessment system, including:

maintaining client privacy and confidentiality

providing accurate information

duty of care under common law

meeting environmental standards

the industrial relations system, industry/workplace relations, and industrial awards/enterprise agreements

compliance with AQTF requirements

copyright and privacy laws in terms of electronic technology

security of information

plagiarism

Training Packages/competency standards/other assessment documentation

licensing requirements

compliance requirements of relevant

Commonwealth and state/territory legislation, including OHS, equal employment opportunity, anti-discrimination and state/territory vocational education and training

Code of Practice for assessors

relevant OHS legislation, codes of practice, standards and guidelines relating to providing assessment advice and guidance

Required skills and attributes include:

analysis and interpretation skills to:

evaluate assessment methods and tools

access and interpret organisation's standards and values

observation skills to:

assess the effectiveness of the organisation's assessment process

distinguish different types of problems, e.g. technical, people and theoretical

technology skills to:

use appropriate equipment and software to systematically monitor assessment process and practice

distribute information

evaluation skills to:

evaluate validation process and determine and implement improvements

determine sampling methods to be used to access information

systematically evaluate personal or others' practice to improve performance or understanding

research skills to:

determine sampling methods to be used to access information

access and analyse relevant documents

use a range of source documents to access information for validation

problem solving skills to:

combine different modes of thinking such as creative and analytic for practical problem solving

anticipate future implications for own and others' decisions

reliably evaluate alternative solutions

literacy skills to:

read, interpret and evaluate policies and procedures to monitor assessment and recognition processes

prepare required documentation and information for those involved in the assessment process

prepare written reports regarding validation outcomes

leadership skills to:

set direction for others

influence and motivate others

guide and support others

manage conflict

make informed decisions and recommendations

schedule validation processes

gain commitment to validation processes and make recommendations to improve processes

communication skills to:

obtain feedback on validation strategy

explain the purpose of reports and other documentation used in the work area

use language to influence others
promote and implement quality standards

individual facilitation techniques:
guide and support assessors one on one

conflict resolution techniques to:
manage difficulties with and between
assessors and between assessors/candidate
and/or assessors/other persons
address appeals situations and process

team and group skills to:
conduct group discussions to gather ideas
recognise different abilities or knowledge
build relationships and networks with
colleagues

attributes, including capacity to encourage,
accept and utilise feedback
awareness and sensitivity to individual
difference and culture

Products that could be used as evidence include:

assessment strategies including quality requirements developed and implemented

documented outcomes of an initiated and facilitated assessment validation process

documented outcomes of an initiated and facilitated assessment appeals process

products and materials organised for validation and appeals processes

analysis of assessment records

risk assessment analysis

Processes that could be used as evidence include:

how opportunities have been provided for assessors to practise and maintain current competence

new and/or extended assessment expertise incorporated into own and others' assessment practice

how support was given to the implementation of quality assurance procedures

leadership, direction and support given to other assessors, including role-modelling of good assessment practice

how improvements were made to assessment and recognition processes

Resource implications for assessment include:

operating assessment system with working assessors and defined assessment system in place including documented policies and procedures for assessment, validation and appeals

access to competency standards and other assessment documentation

access to assessment materials and tools

access to suitable assessment venue/equipment

workplace documentation

cost/time considerations

personnel requirements

The collection of quality evidence requires that:

assessment must address the scope of this unit and reflect all components of the unit i.e. the Elements, Performance Criteria, Range Statement, Evidence Guide, Employability Skills

a range of appropriate assessment methods/evidence gathering techniques is used to determine competency

evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided

the evidence collected must relate to a number of performances assessed at different points in time and in a learning and assessment pathway these must be separated by further learning and practice

assessment meets the rules of evidence

a judgement of competence should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated

Specific evidence requirements must include:

demonstrated continuing development of own assessment expertise

providing leadership, direction and support to other assessors, including role-modelling good assessment practice

monitoring the work of assessors and others involved in carrying out assessments

taking responsibility for initiating, organising and facilitating assessment validation and appeals processes

Integrated assessment means that:

this unit can be assessed alone or as part of an integrated assessment activity involving relevant units in the **TAA04 Training and Assessment Training Package**. Suggested units include but are not limited to:

TAACMQ502B Coordinate training and/or assessment arrangements for apprenticeships/ traineeships

TAACMQ503B Lead and conduct

training and/or assessment evaluations

TAACMQ505B Lead a team to foster innovation

BSBFLM513A Manage budgets and financial plans within work team

BSBFLM514A Manage people

BSBRKG502B Manage and monitor business or records systems

BSBHRM506A Manage recruitment, selection and induction processes

BSBMGT503A Prepare budgets and financial plans

BSBWOR502A Ensure team effectiveness.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Opportunities include:

networking through assessor networks,
communities of practice and membership of
representative organisations
professional and staff development activities
attending forums, conferences, workshops
participating in projects

A range of **assessment methods** includes:

simulations such as hypotheticals,
problem-based exercises and simulated 'real
world' scenarios
structured aural/written questioning
techniques, such as invitation, exploration,
confirmation, investigation and reflection
practical and theoretical tests
workplace projects
structured activities such as role-plays,
presentations, completion of assessment
activity sheets
portfolios
observation
third party feedback
product review

Cognitive skills may include:

analysis skills
synthesis skills
interpretative skills
planning skills
evaluation skills
problem solving skills
critical thinking skills
knowledge transfer skills

Issues may include:

issues and concerns raised by assessors

issues and concerns raised by candidates

issues and concerns raised by others
impacted by the assessment process

assessment system policy and procedure
issues

organisational/legal/ethical issues

Ethical standards include:

following assessment system organisational
policies and procedures

ensuring privacy/confidentiality

demonstrating inclusiveness

following AQTF standards relating to
assessment

ensuring assessment is guided by the
principles of assessment and the rules of
evidence

using Code of Practice for Assessors

duty of care under common law

security of information

confidentiality and privacy requirements

Reflection may include:

asking critical questions about own ability,
for example:

what worked

what did not work

how the session could be improved

reviewing records and journals

critically evaluating personal performance

Assessment strategies are documented
frameworks to guide and structure
assessment arrangements for a vocational
education and training qualification and may
include:

the identification and interpretation of
competency standards for assessment
purposes

the identification and interpretation of related
assessment documentation for assessment
purposes

application of Training Package Assessment
Guidelines

arrangements for recognition of existing
competence (RCC/RPL), including provision

of guidance and assistance to candidates in gathering and evaluating own evidence

determination of assessment methods for identified competency standards

selection of assessment tools for identified competency standards

organisational arrangements for assessment, including physical and human resources, roles and responsibilities, team assessment and partnership arrangements (where relevant)

nominated quality assurance mechanisms

identified risk management strategies

Relevant persons may include:

assessors in own organisation and on site

assessors in own organisation operating in different site/s

assessors of another organisation which is in partnership with own organisation

personnel of own/another organisation who provide vocational/subject matter expertise and who work with the assessor/s in team assessments

other personnel who assist the assessor in collecting evidence of candidate/s competence

other personnel impacted by the assessment process

Partnership arrangements refers to:

collaborative arrangements between a Registered Training Organisation (RTO) and other organisations including other RTOs which enable the partners to share for mutual benefit their resources, effort, time, costs, responsibility and expertise in the provision of training and/or assessment services. These arrangements are regulated by the AQTF Standards for Registered Training Organisations which requires a written agreement between the RTO and each organisation that provides training and/or assessment services on behalf of the RTO.

Leadership skills may include:

techniques for initiating action and directing

decision making
 strategies for presenting a confident, assured and unhesitant manner in response to challenging situations
 strategies for not accepting unreasonable expectations
 maintaining ethical practice and beliefs in the face of opposition
 modelling behavioural and personal presentation standards
 time management
 strategies for acknowledging and respecting the attitudes and beliefs of others
 techniques for promoting active and genuine participation

Client/candidate needs may include:

clear information and advice on the assessment process
 contextualisation of assessment benchmarks and assessment tools to the assessment environment
 timeliness and recognition of readiness for assessment
 assessment tools that support integrated assessment
 advice, support and guidance from assessor/s on participation and role in the assessment process
 reasonable adjustment needs
 cultural sensitivity

Principles of assessment guide the assessment process and must address:

validity
 reliability
 flexibility
 fairness

Assessment methods are the particular techniques used to gather evidence and may include:

direct observation, for example:
 real work/real time activities at the workplace
 work activities in a simulated workplace

environment

structured activities, for example:

simulation exercises/role-plays

projects

presentations

activity sheets

questioning, for example:

written questions, for example, on a computer

interviews

self-assessment

verbal questioning

questionnaires

oral or written examinations (applicable at higher AQF levels)

portfolios, for example:

collections of work samples compiled by the candidate

product with supporting documentation

historical evidence

journal/log book

information about life experience

review of products, for example:

products as a result of a project

work samples/products

third party feedback, for example:

testimonials/reports from employers/supervisors

evidence of training

authenticated prior achievements

Assessment tools contain both the instruments and the procedures for gathering and interpreting evidence in accordance with designated assessment methods and may include:

interview with employer, supervisor, peer
the instruments to be used for gathering evidence such as:
a profile of acceptable performance measures
templates/proformas
specific questions or activities
evidence/observation checklists
checklists for the evaluation of work samples

Rule of evidence include:

candidate self-assessment materials
the procedures, information and instructions for the assessor/candidate relating to the use of assessment instruments and the conditions for assessment
validity of evidence
sufficiency of evidence
currency of evidence
authenticity of evidence

Assessment system policies and procedures may include but are not limited to:

candidate selection
rational and purpose of competency-based assessment
assessment records/data
management/information management
recognition of current
competency/recognition of prior
learning/credit arrangements
assessors - needs, qualifications, maintaining
currency
assessment reporting procedures
assessment appeals
candidate grievances/complaints
validation
evaluation/internal audit
costs/resourcing
access and equity/reasonable adjustment

partnership arrangements
links with human resource or industrial relations systems
links with overall quality management system

Organisational/legal/ethical requirements
may relate to:

AQTF standards in assessment/registration
Assessment specifications of Training Packages
state or territory registering body requirements
clauses defining assessment operations in award and enterprise agreements and relevant industrial arrangements
confidentiality and privacy requirements
relevant legislation from all levels of government that affect training and/or assessment operations
occupational health and safety (OHS)
environmental issues
equal opportunity requirements
industrial relations and anti-discrimination
relevant industry codes of practice
reporting procedures for assessment results
certification procedures/requirements
AQF Guidelines
recording and reporting assessment results
maintaining and retrieving assessment information
quality assurance and/or procedures manuals
goals, objectives, plans, systems and processes
organisational policies/guidelines
access and equity principles and practice
ethical standards
collaborative/partnership arrangements
OHS policies, procedures and programs

	<ul style="list-style-type: none"> quality and continuous improvement processes and standards defined resource parameters
Individual facilitation techniques include coaching, mentoring, tutoring matching individuals one on one and may be used to:	<ul style="list-style-type: none"> identify any gaps in assessor skills/competence explain legal/organisational/policy requirements clarify assessment issues provide encouragement and direction provide feedback/advice/guidance promote safety in assessment problem solve
Validation is:	<ul style="list-style-type: none"> a process involving assessors working in collaboration to review, compare and evaluate their assessment process and their assessment outcomes, in relation to the same units of competency
Purpose, focus and context of validation activities may be:	<ul style="list-style-type: none"> part of organisational quality assurance arrangements to address an identified area of risk in assessment practice and quality to demonstrate compliance with the AQTF Standards for Registered Training Organisations (RTOs) to provide evidence for external audit to provide evidence for internal audit to improve assessment practices to evaluate the quality of assessment tools to provide professional development to increase assessor confidence to determine whether different assessors using the same tools collect the same types and levels of evidence to determine whether different assessors interpret the same evidence similarly to determine whether assessment decisions reflect the rules of evidence

Approaches to validation may include:

- analysing and reviewing assessment tools
- analysing and reviewing collected evidence
- analysing and reviewing assessment decisions/records of assessment outcomes
- examining assessment records
- examining assessment systems
- discussing the assessment process, issues and difficulties in interpretation
- holding interviews with each other or with management, trainers/facilitators, candidates
- analysing client feedback
- observing assessment conduct
- using validation tools
- reviewing and interpreting Assessment Guidelines
- examining assessor qualifications
- analysing appeals processes
- recording evidence of validation processes and outcomes

Materials and resources for validation may include:

- relevant documented assessment strategy
- samples of assessment materials/tools
- copies of relevant competency standards, modules, Training Package Assessment Guidelines and course assessment requirements
- copies of organisational policies and procedures on validation
- copies of relevant AQTF standards
- copies of assessment records (in accord with confidentiality requirements)
- copies of client/candidate feedback
- determining time/availability for validation sessions
- technology requirements
- meeting room/space for conduct of validation

	<ul style="list-style-type: none">copies of occupational health and safety policy, procedures and programscopy of quality and continuous improvement policiescopy of equity policy and procedures
Validation documentation may include:	<ul style="list-style-type: none">report of validation processrecommendations from validation processcopies of materials/resources used in validation processversion control documentation
Assessment appeals:	is a process whereby the candidate, or other interested party, may dispute the assessment decision and seeks a formal review of the decision
Documentation relevant to the appeals process may include:	<ul style="list-style-type: none">candidate's claim for appealdocumented information given to the candidate outlining assessment system, process and requirementsrecords of assessor/meetings with the candidate, discussions and agreements on assessment processcompleted self-assessment toolscompleted assessment tools signed by assessor and/or other persons involved in collecting evidencesupplementary documentation used as evidence by the candidaterecords of assessment outcomesassessor/candidate feedback reportsrecords of appeal hearingsrecords of appeal outcomes
Panel decision may include:	<ul style="list-style-type: none">confirmation of original assessment decisionchange in decision based on evidence presentedreassessment of the candidate

Unit Sector(s)

Not applicable.

Competency Field

Assessment

TAADES502B Design and develop learning resources

Modification History

Not applicable.

Unit Descriptor

This unit specifies the competency required to design and develop resources to support learning.

Application of the Unit

Learning resources are designed to enhance and support the effectiveness of the learning process. They provide guidance, materials, learning and assessment activities, and relevant information that address the competencies/learning outcomes to be achieved by the learner. In the **TAA04 Training and Assessment Training Package**, learning resources are defined as learning materials that have been specifically developed to address a substantive area of teaching/learning and/or assessment guidance and support.

Learning resources may address a whole Training Package, a Training Package or course qualification or a learning program. Learning resources may also take the form of existing equipment, physical materials and physical resources within the learning environment.

Learning resources can take a variety of forms such as facilitation guides, learning guides/participant resources, assessment materials, workplace resources and text books, and may be self-paced or instructor-led. While primarily text and print-based, other mediums such as audio or video learning resources could be developed using this unit. The complexity of the resource will vary depending on its focus, type, audience and technological medium.

Although the range of learning resources may vary, the skills and knowledge required to design and develop them is the same, with instructional design being a critical aspect.

Where a learning resource product is built around an electronic medium, other critical skills, knowledge and outcomes are required. These are addressed through separate units of competency, **TAADES503B Research and design e-learning resources** and **TAADES504B Develop and evaluate e-learning resources**. Co-learning and co-assessment is suggested where competency across all media is required.

Design and development are combined in this unit. In some circumstances the design phase and content development are separated, especially in a large project. However, it is important that competency reflects the whole process.

Depending on the complexity of the resource, extensive consultation and working with others may be required.

This unit can provide a specific application for undertaking the generic unit **TAATAS503B Manage contracted work**.

The competency specified in this unit is typically required by trainers/facilitators, instructional designers, assessors and consultants.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where **bold italicised** text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Research and interpret the learning resource requirements	1.1 The brief, focus and type of learning resource is clarified with the client
	1.2 The likely target audience/s , their learning needs and the learning environment for the resource are researched
	1.3 The characteristics of the learners/end users of the learning resource are identified
	1.4 Existing information which may be relevant is gathered, collated and analysed
	1.5 Ethical and legal considerations are identified and acted upon
	1.6 A development work plan is written and documented

- 2 **Design the learning resource and plan the content**
 - 2.1 A range of **design options** is generated using a variety of **principles and techniques**
 - 2.2 Time is taken to **reflect** on the designs, identifying the implications of each
 - 2.3 The diversity of learners/end users and their **learning styles** are researched and embedded into the design specifications
 - 2.4 An **outline or prototype** for the learning resource is developed and confirmed with the client
 - 2.5 The **content specifications** of the learning product are analysed and the proposed content is mapped out
 - 2.6 The breadth and depth of the proposed content is determined, in accordance with the design prototype, content specifications and financial constraints
 - 2.7 **Relevant personnel** are identified to support the development phase, if needed
- 3 **Develop the learning resource content**
 - 3.1 Content and content specification is developed in accordance with the agreed design
 - 3.2 Modifications are made to the design and/or content, where necessary, to address changes in project parameters
 - 3.3 **Mechanisms** for reviewing work in progress are established
 - 3.4 Text is clear, concise, grammatically correct and appropriate for the intended audience/s
 - 3.5 Visuals are relevant, instructive and appropriate for the intended audience/s
 - 3.6 The resource is formatted using an appropriate **style guide**
- 4 **Review learning resource prior to implementation**
 - 4.1 Content of the resource is checked to ensure the accuracy and relevance of information against content specifications
 - 4.2 Text, format and visual design are checked for

clarity and focus

- 4.3 An external review is conducted using appropriate **methods**, and feedback is incorporated where relevant
- 4.4 Final draft is reviewed against the brief and other relevant criteria to ensure it meets all requirements prior to delivery to the client
- 5 **Evaluate the design and development process**
 - 5.1 The design and development process is reviewed against appropriate **evaluation criteria**
 - 5.2 Time is taken to reflect and identify areas for improvement
 - 5.3 Identified improvements are documented for future projects

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of Assessment

To demonstrate competency against this unit candidates must be able to provide evidence that they have designed and developed learning resources.

The learning resources provided as evidence must: clearly identify the target audience; be appropriate to the target group; and be well structured, clear, interesting, appropriate, easy to use, and accessible.

Competency also requires demonstrated ability to research learning resource requirements and content, seek and accept feedback, work effectively with a project team or other experts as required, and critically evaluate own work.

Evidence Requirements

Required knowledge includes:

sound knowledge of the vocational education and training system, including:

relevant terminology

training and assessment processes

Training Packages and competency standards

the Australian Quality Training Framework (AQTF) requirements

the Australian Qualifications Framework (AQF)

instructional design, for example:

planning, analysis, development, synthesis, evaluation

presenting material in a logical order and sequence

opportunities for collaborative learning between learners

navigation tools

presenting material in order of increasing difficulty

opportunities for review of material and

repetition

the need for learner activity and interactivity

inclusion of a variety of approaches and techniques for presenting information and activities and for encouraging participation by learning

structure of the information

ensure learning is embedded in a realistic and relevant context

techniques to engage the learner in learning

visual design principles/techniques, for example:

format

composition

balance

typography

images/graphics

charts/diagrams

research and evaluation techniques, including:

interviews

focus groups

workshops

questionnaires

literature reviews

web research

pilot processes

a general knowledge of the main branches of learning theory, for example:

behavioural learning theory

information processing theory

cognitive learning theory

andragogy

vocational education and training pedagogy

learning principles, including:

adults are autonomous and self-directed

adults have life experience to draw on

adults are goal-oriented

adults need relevance

adults are practical

adults need to be shown respect

cultural awareness

a range of learning approaches and styles of learning resources

different learning styles, including:

activist

reflector

theorist

pragmatist

kinaesthetic

auditory

visual

language, literacy and numeracy (LLN)

issues, for example:

principles and definitions

how to work out the LLN level of likely

users, and LLN requirements of the resource

relevant policy, legislation, codes of practice

and national standards including

Commonwealth and state/territory

legislation, for example:

copyright and privacy laws relating to

electronic technology

security of information

plagiarism

competency standards

licensing
industry/workplace requirements
duty of care under common law
anti-discrimination including equal
opportunity, racial vilification and disability
discrimination
workplace relations
industrial awards/enterprise agreements

relevant OHS knowledge relating to the work
role, and OHS procedures which need to be
included in the content of the learning
resource

OHS obligations of the training and/or
assessment organisation, the
trainer/facilitator and learner

Required skills and attributes include:

review and analysis skills to:
identify areas for improvement
recognise personal limitations

communication and interpersonal skills to:
collaborate with a range of people
seek feedback from others
be open to feedback and suggestions
maintain a network
listen
negotiate

computer/technical skills, for example:
using a range of software programs
using a range of office equipment

literacy/writing skills, including:
writing from the learner's perspective
writing for different audiences

using plain English and correct grammar
pitching writing to the appropriate level
using an appropriate style
having an eye for detail

time management skills, including keeping to appropriate timelines

analytical skills to:

identify critical learning points

structure and weight the contents appropriately

determine appropriateness of feedback

ability to develop a range of learning activities

research skills to:

find content and relevant information

interview relevant people

solve problems

ask questions

Products that could be used as evidence include:

learning resources developed

letters to relevant personnel seeking comments and feedback

evaluation forms

minutes of meetings

drafts of resources

feedback received from others

Processes that could be used as evidence include:

how research was undertaken and why

how consultative process was set up

how industry or end user requirements were established

how resource was evaluated and reviewed

what methods were used to evaluate the process used for resource development and why

	ways in which personal skills and efficiency were developed and monitored and why
	how personal workload was managed
Resource implications for assessment include:	research for content of resources
	access to experts for review and consultation
The collection of quality evidence requires that:	assessment must address the scope of this unit and reflect all components of the unit i.e. the Elements, Performance Criteria, Range Statement, Evidence Guide, Employability Skills
	a range of appropriate assessment methods/evidence gathering techniques is used to determine competency
	evidence must be gathered in the workplace whenever possible. Where no workplace is available, a simulated workplace must be provided
	the evidence collected must relate to a number of performances assessed at different points in time and in a learning and assessment pathway these must be separated by further learning and practice
	assessment meets the rules of evidence
	a judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated
Specific evidence requirements must include:	a complete print-based learning resource product that demonstrates competency in accordance with the specifications of this unit or
	evidence of contributions to a range of learning resources and learning materials that in combination demonstrate competency in accordance with the specifications of this unit
	evidence of transferable application to the development of other learning resources designed under the guidelines for Training Package support materials

print-based

Integrated assessment means that:

this unit can be assessed alone or as part of an integrated assessment activity involving relevant units in the **TAA04 Training and Assessment Training Package**. Suggested units include but are not limited to:

TAADES401B Use Training Packages to meet client needs

TAADES402B Design and develop learning programs

TAADES501B Design and develop learning strategies

TAADEL405B Coordinate and facilitate distance-based learning

TAATAS503B Manage contracted work

TAADES503B Research and design e-learning resources

TAADES504B Develop and evaluate e-learning resources.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

The brief of the learning resource may include:

a client proposal
 identified gap in the learning product market
 a tender
 an organisational need

Focus of the learning resource may include:

a whole Training Package
 a Training Package qualification/qualifications
 a traineeship/apprenticeship
 an accredited course
 individual competency standards/modules/subjects
 a non-accredited course
 a learning program
 a learning resource to support the introduction/ implementation of new technology/equipment

Type of learning resource may include:

Training Package noted support materials, such as:
 learner/user guides
 trainer/facilitator guides
 training guides
 example training programs
 specific case studies
 professional development materials
 assessment materials

other published, commercially available support materials for Training Packages/courses
 organisational learning resources

competency standards as a learning resource
videos
CDs and audio tapes
references and texts
manuals
record/log books
learning resources and learning materials developed under the Workplace English Language and Literacy (WELL) program
learning resources produced in languages other than English as appropriate to target group learners and workplace

The learning resource is:

designed to enhance and support the effectiveness of the learning process. It provides guidance, materials, learning and assessment activities, and relevant information that addresses the competencies/ learning outcomes to be achieved by the learner

Likely target audience/s and learning environment must include:

who the learning resource is for
what the learning resource is designed to do
how the learning resource will be used
where the learning resource will be used
possible mediums to be used

Research may include:

interviews
focus groups
informal discussions
literature reviews
Internet research
evaluations of existing products
questionnaires
workshops

Characteristics of the learners/end users may include:

level of prior experience/knowledge of content area
skill/competency profile
range and response to previous learning

experiences
level of education
socio-economic background, age, gender
current work
work culture
cultural and ethnic background
disability or learning support needs
preferred learning styles
motivation for learning
English language, literacy and numeracy needs

Existing information may include:

industry/end user needs
industry best practice and culture
existing learning resources and learning materials
relevant Training Packages/competency standards
relevant courses, curriculums, modules
workplace procedures, documentation, and requirements
industry coverage
roles and responsibilities of groups and individuals
information from industry experts and advisers

Ethical and legal considerations may include:

contract preparation
meeting contractual requirements
intellectual property
regulatory requirements including occupational health and safety (OHS)
organisational requirements
equity issues and needs
potential legal consequences of false, misleading or incorrect information

Development work plan may include:

timelines and milestones to be achieved

scheduled meetings and focus groups
consultative processes
handover requirements
equipment, learning resources and learning materials needed
industry information/practices
budget
identification of risks/risk management strategies
organisation/industrial politics
access to experts/advisers

Design options may include:

use and extent of practical activity-based content and passive content (reading, interpreting and absorbing information)
use and extent of text-based information and graphical information
level of depth of text-based information and sophistication of language
level of completeness in addressing the focus
options for presenting text-based information e.g. straight text, question and answer, case studies
visual design
sequencing of material
sources of further information/further reading
style guides
visual look

Principles and techniques may include:

instructional design, for example:
presenting material in a logical order and sequence
opportunities for collaborative learning between learners
navigation tools
presenting material in order of increasing difficulty
opportunities for review of material and

repetition

the need for learner activity and interactivity

inclusion of a variety of approaches and techniques for presenting information and activities and for encouraging participation by learning

structure of the information

ensuring learning is embedded in a realistic and relevant context

techniques to engage the learner in learning

creative thinking, for example:

brainstorming

mind mapping

scenario setting

lateral thinking

visual/graphic design, for example:

format

composition

balance

typography

images/graphics

charts/diagrams

research and evaluation, for example:

of other learning resources

up-to-date research on learning

Reflectmay include:

asking key questions

discussing details with others, for example:

colleagues

team members

other learning product

developers/instructional designers

the client

supervisor/manager

standing back from work

setting specified times for reflection

reviewing personal skills

Learning styles may include:

theoretical

pragmatic

active

reflective

kinaesthetic

auditory

visual

Outline or prototypemay include:	mock-up framework model format specifications
Content specificationsmay include:	requirements of relevant Training Packages, competency standards/benchmarks OHS requirements work practices and procedures culture and ethics of the learner/end user environment organisational requirements copyright/intellectual property agreements/ acknowledgements
Relevant personnelmay include:	subject matter/technical experts industry experts colleagues learners or users industry stakeholders specialist consultants, e.g. language, literacy and numeracy specialists
Mechanismsmay include:	verbal or written communication with relevant personnel verbal or written communication with content experts project updates internal/external reviews of drafts
Style guidemay include:	fonts - types and sizes line spacing white space icons use of visuals - icons, photographs, pictures, diagrams signposting logos

Methods may include:

DEST Style Guide
client style guide
evaluation by experts
pilot
focus groups
questionnaires
checklists
workshops
telephone interviews

Evaluation criteria may include:

meeting the brief
satisfaction of the client
timeliness
cost
design issues/modifications required
blockages and responses
team effectiveness/cohesion
level of expertise required/available

Unit Sector(s)

Not applicable.

Competency Field

Learning Design

TAEASS301A Contribute to assessment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to contribute to the assessment process.
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Application of the Unit

Application of the unit	<p>This unit typically applies to a person with technical or vocational expertise who is in a supervisory or mentoring/coaching work role and for whom collecting evidence for assessment is an adjunct to principal work responsibilities.</p> <p>This unit is performed under the following conditions:</p> <ul style="list-style-type: none"> • the necessary assessment tools and assessment resources to guide the evidence collection process have been provided • any adjustments to tools are determined by the qualified assessor (as defined by the Australian Quality Training Framework and the assessor requirements of the relevant training package), who provides guidance and supervision.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Clarify role and responsibilities in the assessment process	1.1. Discuss and confirm <i>purpose of assessment</i> with <i>relevant people</i> 1.2. Discuss and confirm <i>benchmarks for assessment</i> with qualified assessor 1.3. Access, read and clarify <i>assessment plan</i> with qualified assessor 1.4. Discuss and agree with qualified assessor the specific responsibilities in gathering evidence and types of evidence to be gathered
2. Confirm organisational arrangements for evidence gathering	2.1. Access and confirm relevant <i>assessment system policies and procedures</i> ; organisational, legal and ethical requirements; and other relevant advice on assessment 2.2. Clarify nominated assessment methods and tools for collecting evidence with qualified assessor, to ensure that procedures to be followed and instruments to be used are clear 2.3. Discuss and confirm with relevant people <i>assessment context</i> , including candidate's characteristics and any need for <i>reasonable adjustments</i> 2.4. Confirm and arrange <i>resource requirements</i> in consultation with relevant people
3. Collect evidence in accordance with the assessment plan	3.1. Explain assessment process to candidate, including the different responsibilities of the parties involved, and refer any candidate issues or concerns to qualified assessor prior to undertaking assessment activities 3.2. Use assessment tools to gather quality evidence within available time and resources, according to organisational, legal and ethical requirements
4. Record and report findings	4.1. Organise and provide evidence to the qualified assessor in a format suitable for analysis according to assessment system policies and procedures 4.2. Actively seek feedback from the qualified assessor on whether evidence-gathering activities meet the principles of assessment and whether evidence collected meets the rules of evidence 4.3. Document areas for improvement in collecting evidence, for future assessment activities

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- observation skills to observe candidate performance
- cognitive and interpretation skills to ensure collection of valid and reliable evidence
- organisational skills to collect evidence
- time-management skills to schedule assessment events and activities
- literacy skills to:
 - read and interpret relevant information
 - prepare required documentation and collate evidence in required format
- communication skills to:
 - discuss evidence-gathering processes with practitioners and candidates
 - provide constructive and supportive feedback
 - ask appropriate questions to clarify and confirm instructions for evidence gathering
 - provide clear and concrete options and advice

Required knowledge

- competency-based assessment, including:
 - criterion-referenced
 - competency standards as the benchmarks for assessment
 - competency-based reporting
- principles of assessment
- rules of quality evidence
- different purposes of assessment
- diversity of assessment contexts
- evidence, including different types of evidence
- evidence-gathering methods - what are assessment methods and different types of methods
- purpose and features of assessment tools and assessment plans
- potential barriers and processes relating to evidence-gathering procedures and assessment processes
- organisational assessment system policies and procedures relevant to this unit of competency
- technical or subject area being assessed
- cultural sensitivity and equity considerations
- relevant policy, legislation, codes of practice and national standards, including commonwealth and state or territory legislation, that may affect training and

REQUIRED SKILLS AND KNOWLEDGE

assessment in the vocational education and training sector

- OHS relating to the work role, and OHS considerations to be included in collecting evidence, including:
 - hazard identification and risk control measures
 - requirements for reporting hazards and incidents
 - emergency procedures
 - procedures for use of relevant personal protective equipment
 - safe use of relevant equipment
 - sources of OHS information
 - role of key workplace personnel
 - responsibilities of learners

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. A range of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • carry out a minimum of three evidence-gathering activities, with different candidates for each activity • present documentation of the evidence in a clear and concise manner • present documented feedback from others involved in the assessment.
Context of and specific resources for assessment	Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Purpose of assessment</i> may be:</p>	<ul style="list-style-type: none"> • recognise current existing competency of candidates • determine if competency has been achieved following learning • establish candidate progress towards achievement of competence • determine language, literacy and numeracy needs of candidate • certify competence through a Statement of Attainment • establish progress towards a qualification • determine training gaps of candidate • measure work performance • classify employee and support career progression • meet organisational requirements for work, such as operating equipment or developing new skills • satisfy licensing or regulatory requirements.
<p><i>Relevant people</i> must include:</p>	<ul style="list-style-type: none"> • qualified assessors • candidates.
<p><i>Benchmarks for assessment:</i></p>	<ul style="list-style-type: none"> • refer to criteria against which candidate is assessed • may be a competency standard/unit of competency, assessment criteria of course curricula, performance specifications, or product specifications.
<p><i>Assessment plan</i> must include:</p>	<ul style="list-style-type: none"> • purpose and aims of assessment • context of assessment • relevant benchmarks for assessment • other assessment information and documentation identified as relevant.
<p><i>Assessment system policies and procedures</i> may include:</p>	<ul style="list-style-type: none"> • candidate selection • rationale and purpose of competency-based assessment • assessment records, data management and information management • recognition of current competency, recognition of prior learning and credit arrangements.

RANGE STATEMENT	
<i>Assessment context</i> may include:	<ul style="list-style-type: none"> • environment in which assessment will be carried out • relationship between units of competency and candidate's workplace • time period over which assessment takes place.
<i>Reasonable adjustments</i> may include:	<ul style="list-style-type: none"> • taking into account candidate's language, literacy and numeracy requirements • providing personal support services, such as arranging for: <ul style="list-style-type: none"> • member of the community to accompany the candidate • reader • interpreter • attendant carer • scribe • using adaptive technology or special equipment • providing flexible assessment sessions to allow for such things as fatigue or administering of medication • format of assessment materials, such as: <ul style="list-style-type: none"> • in Braille • in first language • use of audiotape or videotape • making adjustments to the physical environment • revising proposed assessment methods and tools • considering age and gender • considering cultural beliefs, traditional practices and religious observances.
<i>Resource requirements</i> may include:	<ul style="list-style-type: none"> • resources specific to evidence-gathering activities • access to assessors • access to policy and procedures • access to subject and technical experts • OHS requirements • plant, equipment and technology.

Unit Sector(s)

Unit sector	Assessment

Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEASS401A Plan assessment activities and processes

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to plan and organise the assessment process, including recognition of prior learning (RPL), in a competency-based assessment system. It also includes the development of simple assessment instruments.
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Application of the Unit

Application of the unit	<p>This unit typically applies to assessors and workplace supervisors with assessment planning responsibilities; and trainers or other assessors responsible for planning assessment, including RPL.</p> <p>The unit is suitable for those with an existing assessment strategy which documents the overall framework for assessment.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine assessment approach	1.1. Identify candidate and confirm <i>purposes and context of assessment/RPL</i> with relevant people according to <i>legal, organisational and ethical requirements</i> 1.2. Identify and access <i>benchmarks for assessment/RPL</i> and any specific assessment guidelines
2. Prepare the assessment plan	2.1. Determine evidence and <i>types of evidence</i> needed to demonstrate competence, according to the <i>rules of evidence</i> 2.2. Select <i>assessment methods</i> which will support the collection of defined evidence, taking into account the context in which the assessment will take place 2.3. Document all aspects of the <i>assessment plan</i> and confirm with relevant personnel
3. Develop assessment instruments	3.1. Develop <i>simple assessment instruments</i> to meet target group needs 3.2. Analyse <i>available assessment instruments</i> for their suitability for use and modify as required 3.3. <i>Map assessment</i> instruments against unit or course requirements 3.4. Write clear instructions for candidate about the use of the instruments 3.5. Trial draft assessment instruments to validate content and applicability, and record outcomes

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- cognitive interpretation skills to:
 - interpret competency standards and other assessment documentation, including material relating to reasonable adjustment
 - identify opportunities for integrated competency assessment
 - contextualise competency standards to the operating assessment environment, including RPL
 - consider access and equity needs of diverse candidates
- technology skills to use appropriate equipment and software to communicate effectively with others
- research and evaluation skills to:
 - obtain competency standards, assessment tools and other relevant assessment resources
 - research candidate characteristics and any reasonable adjustment needs
 - evaluate feedback, and determine and implement improvements to processes
- literacy skills to read and interpret relevant information to design and facilitate assessment and recognition processes
- communication skills to discuss assessment, including RPL processes with clients and other assessors
- interpersonal skills to:
 - demonstrate sensitivity to access and equity considerations and candidate diversity
 - promote and implement equity, fairness, validity, reliability and flexibility in planning an assessment processes

Required knowledge

- ethical and legal requirements of an assessor
- competency-based assessment, including:
 - work-focused
 - criterion-referenced
 - standards-based
 - evidence-based
- different purposes of assessment and different assessment contexts, including RPL
- how to read and interpret the identified competency standards as the benchmarks for assessment
- how to contextualise competency standards within relevant guidelines
- four principles of assessment and how they guide the assessment process

REQUIRED SKILLS AND KNOWLEDGE

- | |
|---|
| <ul style="list-style-type: none">• purpose and features of evidence, and different types of evidence used in competency-based assessments, including RPL• rules of evidence and how they guide evidence collection• different types of assessment methods, including suitability for collecting various types of evidence• assessment tools and their purpose; different types of tools; relevance of different tools for specific evidence-gathering opportunities |
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Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must address the scope of this unit and reflect all components of the unit. A range of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • plan and organise the assessment process on a minimum of two occasions • collect evidence that demonstrates: <ul style="list-style-type: none"> • documented assessment plans • having covered a range of assessment events • catering for a number of candidates • different competency standards or accredited curricula • an RPL assessment • contextualisation of competency standards and the selected assessment tools, where required • incorporation of reasonable adjustment strategies • development of simple assessment instruments for use in the process • organisational arrangements.
<p>Context of and specific resources for assessment</p>	<p>Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.</p> <p>Assessment must ensure access to training products, such as training packages and accredited course documentation.</p>
<p>Method of assessment</p>	
<p>Guidance information for assessment</p>	<p>For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Purposes of assessment/ RPL</i> may include:</p>	<ul style="list-style-type: none"> • recognising current existing competence of candidates • determining if competence has been achieved following learning • establishing candidate progress towards achievement of competence • determining language, literacy and numeracy needs of candidates • certifying competence through a qualification or Statement of Attainment • licensing or regulatory requirements.
<p><i>Context of assessment/ RPL</i> may include:</p>	<ul style="list-style-type: none"> • environment in which the assessment/RPL will be carried out, including real or simulated workplace • opportunities for collecting evidence in a number of situations • relationships between competency standards and: <ul style="list-style-type: none"> • evidence to support RPL • work activities in the candidate's workplace • learning activities • who carries out the assessment/RPL.
<p><i>Organisational, legal and ethical requirements</i> may include:</p>	<ul style="list-style-type: none"> • assessment system policies and procedures • assessment strategy requirements • reporting, recording and retrieval systems for assessment, including RPL • quality assurance systems • business and performance plans • access and equity policies and procedures • collaborative and partnership arrangements • defined resource parameters • mutual recognition arrangements • industrial relations systems and processes, awards, and enterprise agreements • Australian Quality Training Framework

RANGE STATEMENT	
	<ul style="list-style-type: none"> • registration scope • human resources policies and procedures • legal requirements, including: <ul style="list-style-type: none"> • anti-discrimination • equal employment opportunity • job role, responsibilities and conditions • relevant industry codes of practice • confidentiality and privacy requirements • OHS considerations, including: <ul style="list-style-type: none"> • ensuring OHS requirements are adhered to during the assessment process • identifying and reporting OHS hazards and concerns to relevant personnel.
Benchmarks for assessment/RPL may include:	<ul style="list-style-type: none"> • criterion against which the candidate is assessed or prior learning recognised, which may be: <ul style="list-style-type: none"> • competency standard/unit of competency • assessment criteria of course curricula • performance specifications of an enterprise or industry • product specifications.
Types of evidence may include:	<ul style="list-style-type: none"> • direct • indirect • supplementary.
Rules of evidence ensure that evidence collected is:	<ul style="list-style-type: none"> • valid • sufficient • authentic • reliable.
Assessment methods are the particular techniques used to gather evidence and may include:	<ul style="list-style-type: none"> • direct observation, for example: <ul style="list-style-type: none"> • real work/real time activities at the workplace • work activities in a simulated workplace environment • structured activities, for example: <ul style="list-style-type: none"> • simulation exercises and role-plays • projects • presentations • activity sheets • questioning, for example: <ul style="list-style-type: none"> • written questions, e.g. on a computer • interviews

RANGE STATEMENT	
	<ul style="list-style-type: none"> • self-assessment • verbal questioning • questionnaires • oral or written examinations (applicable at higher AQF levels) • portfolios of evidence, for example: <ul style="list-style-type: none"> • collection of work samples compiled by candidate • product with supporting documentation • historical evidence • journal or log book • information about life experience • review of products, for example: <ul style="list-style-type: none"> • testimonials and reports from employers and supervisors • evidence of training • authenticated prior achievements • interview with employer, supervisor, or peer.
<i>Assessment plan</i> may include:	<ul style="list-style-type: none"> • overall planning document describing: <ul style="list-style-type: none"> • what is to be assessed • when assessment is to take place • where assessment is to take place • how assessment is to take place.
<i>Simple assessment instruments</i> may include:	<ul style="list-style-type: none"> • instruments developed by an assessor as part of formative or summative assessment activities, including: <ul style="list-style-type: none"> • profiles of acceptable performance measures • templates and proformas • specific questions or activities • evidence and observation checklists • checklists for the evaluation of work samples • recognition portfolios • candidate self-assessment materials • instruments developed elsewhere that have been modified by the assessor for use with a particular client group.
<i>Available assessment instruments</i> may include:	<ul style="list-style-type: none"> • commercially available instruments • those created by others inside the registered training organisation.

RANGE STATEMENT**Map assessment** means:

- showing a clear relationship between the evidence and the requirements of the unit.

Unit Sector(s)

Unit sector	Assessment
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEASS402A Assess competence

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to assess the competence of a candidate.
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Application of the Unit

Application of the unit	This unit typically applies to assessors.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for assessment	1.1. Interpret <i>assessment plan</i> and confirm organisational, legal and ethical requirements for conducting assessment with relevant people 1.2. Access and interpret relevant <i>benchmarks for assessment</i> and nominated <i>assessment tools</i> to confirm the requirements for evidence to be collected 1.3. Arrange identified material and physical resource requirements according to assessment system policies and procedures 1.4. Organise <i>specialist support</i> required for assessment 1.5. Explain, discuss and agree details of the assessment plan with candidate
2. Gather quality evidence	2.1. Use agreed <i>assessment methods</i> and tools to gather, organise and document evidence in a format suitable for determining competence 2.2. Apply the principles of assessment and rules of evidence in gathering quality evidence 2.3. Determine opportunities for evidence gathering in actual or simulated activities through consultation with the candidate and relevant personnel 2.4. Determine opportunities for integrated assessment activities and document any changes to assessment instruments where required
3. Support the candidate	3.1. Guide candidates in gathering their own evidence to support recognition of prior learning (RPL) 3.2. Use appropriate communication and interpersonal skills to develop a professional relationship with the candidate that reflects sensitivity to <i>individual differences</i> and enables two-way <i>feedback</i> 3.3. Make decisions on reasonable adjustments with the candidate, based on candidate's needs and characteristics 3.4. Access required specialist support in accordance with the assessment plan 3.5. Address any OHS risk to person or equipment immediately
4. Make the assessment decision	4.1. Examine collected evidence and evaluate it to ensure that it reflects the evidence required to demonstrate competence 4.2. Use judgement to infer whether competence has

ELEMENT	PERFORMANCE CRITERIA
	<p>been demonstrated, based on the available evidence</p> <p>4.3. Make assessment decision in line with agreed assessment procedures and according to agreed assessment plan</p> <p>4.4. Provide clear and constructive feedback to candidate regarding the assessment decision and develop any follow-up action plan required</p>
5. Record and report the assessment decision	<p>5.1. Record assessment outcomes promptly and accurately</p> <p>5.2. Complete and process an assessment report according to agreed assessment procedures</p> <p>5.3. Inform other relevant parties of the assessment decision according to confidentiality conventions</p>
6. Review the assessment process	<p>6.1. Review the assessment process in <i>consultation</i> with relevant people to improve own future practice</p> <p>6.2. Document and record the review according to relevant assessment system policies and procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis and interpretation skills to:
 - break down competency standards
 - interpret assessment tools and other assessment information, including those used in RPL
 - identify candidate needs
 - make judgements based on assessment of available evidence
- observation skills to:
 - recognise candidate's prior learning
 - determine candidate's performance
 - identify when candidate may need assistance during the assessment processes
- research and evaluation skills to:
 - access required human and material resources for assessment
 - access assessment system policies and procedures
 - access RPL policies and procedures
 - evaluate evidence
 - evaluate assessment process
- cognitive skills to:
 - weigh up the evidence and make a judgement
 - consider and recommend reasonable adjustments
- decision-making skills to:
 - recognise a candidate's prior learning
 - make a decision on a candidate's competence
- literacy skills to:
 - read and interpret relevant information to conduct assessment
 - prepare required documentation and records or reports of assessment outcomes in required format
- communication and interpersonal skills to:
 - explain the assessment, including RPL process
 - give clear and precise instructions
 - ask effective questions
 - provide clarification
 - discuss process with other relevant people
 - give appropriate feedback
 - discuss assessment outcome

REQUIRED SKILLS AND KNOWLEDGE

- use language appropriate to candidate and assessment environment
- establish a working relationship with candidate

Required knowledge

- competency-based assessment, including:
 - vocational education and training as a competency-based system
 - criterion-referenced assessment as distinct from norm-referenced assessment
 - competency standards as the basis of qualifications
 - structure and application of competency standards
 - principles of assessment and how they are applied
 - rules of evidence and how they are applied
 - range of assessment purposes and assessment contexts, including RPL
 - different assessment methods, including suitability for gathering various types of evidence, suitability for content of units, and resource requirements and associated costs
 - reasonable adjustments and when they are applicable
 - types and forms of evidence, including assessment tools that are relevant to gathering different types of evidence used in competency-based assessment, including RPL
 - potential barriers and processes relating to assessment tools and methods
 - assessment system, including policies and procedures established by the industry, organisation or training authority
- RPL policies and procedures established by the organisation
- cultural sensitivity and equity considerations
- relevant policy, legislation, codes of practice and national standards, including commonwealth and state or territory legislation that may affect training and assessment in the vocational education and training sector, such as:
 - copyright and privacy laws in terms of electronic technology
 - security of information
 - plagiarism
 - training packages and competency standards
 - licensing requirements
 - industry and workplace requirements
 - duty of care under common law
 - recording information and confidentiality requirements
 - anti-discrimination, including equal employment opportunity, racial vilification and disability discrimination
 - workplace relations
 - industrial awards and enterprise agreements
- OHS responsibilities associated with assessing competence, such as:

REQUIRED SKILLS AND KNOWLEDGE

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|--|
| <ul style="list-style-type: none">• requirements for reporting hazards and incidents• emergency procedures• procedures for use of relevant personal protective equipment• safe use and maintenance of relevant equipment• sources of OHS information |
|--|

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • assess competence of a number of candidates within the vocational education and training context against different units of competency or accredited curricula, following the relevant assessment plan • assess at least one candidate for RPL • consider reasonable adjustment and the reasons for decisions in at least one assessment • cover an entire unit of competency and show: <ul style="list-style-type: none"> • the application of different assessment methods and tools involving a range of assessment activities and events • two-way communication and feedback • how judgement was exercised in making the assessment decision • how and when assessment outcomes were recorded and reported • assessment records and reports completed in accordance with assessment system and organisational, legal and ethical requirements • how the assessment process was reviewed.
Context of and specific resources for assessment	Evidence must be gathered in the workplace whenever possible. Where no workplace is available, a simulated workplace must be provided.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Assessment plan</i> may include:</p>	<ul style="list-style-type: none"> • overall planning, describing: <ul style="list-style-type: none"> • what is to be assessed • when assessment is to take place • where assessment is to take place • how assessment is to take place.
<p><i>Benchmarks for assessment:</i></p>	<ul style="list-style-type: none"> • refer to a criterion against which the candidate is assessed • may be a competency standard/unit of competency, assessment criteria of course curricula, performance specifications, or product specifications.
<p><i>Assessment tools</i> may include:</p>	<ul style="list-style-type: none"> • both the instrument and the procedures for gathering and interpreting evidence in accordance with designated assessment methods • instruments to be used for gathering evidence, such as: <ul style="list-style-type: none"> • profile of acceptable performance measures • templates and proformas • specific questions or activities • evidence and observation checklists • checklists for evaluating work samples • candidate self-assessment materials • procedures, information and instructions for the assessor and candidate relating to the use of assessment instruments and assessment conditions.
<p><i>Specialist support</i> may include:</p>	<ul style="list-style-type: none"> • assistance by third party, such as carer or interpreter • support from specialist educator • provision of developed online assessment activities • support for remote or isolated candidates and assessors • support from subject matter or safety experts • advice from regulatory authorities • assessment teams and panels • support from lead assessors • advice from policy development experts.

RANGE STATEMENT	
<i>Assessment methods</i> include:	<ul style="list-style-type: none"> • particular techniques used to gather different types of evidence, such as: <ul style="list-style-type: none"> • direct observation • structured activities • oral or written questioning • portfolios of evidence • review of products • third-party feedback.
<i>Individual differences</i> may include:	<ul style="list-style-type: none"> • English language, literacy and numeracy barriers • physical impairment or disability • intellectual impairment or disability • medical condition that may impact on assessment, such as arthritis, epilepsy, diabetes and asthma • learning difficulties • mental or psychological disability • religious and spiritual observances • cultural images and perceptions • age • gender.
<i>Feedback</i> may include:	<ul style="list-style-type: none"> • ensuring assessment/RPL process is understood • ensuring candidate concerns are addressed • enabling questions and answers • confirming outcomes • identifying further evidence to be provided • discussing action plans • confirming gap training needed • providing information regarding available appeal processes • suggesting improvements in evidence gathering and presentation.
<i>Consultation</i> may involve:	<ul style="list-style-type: none"> • moderation with other assessors, or training and assessment coordinators • discussions with client, team leaders, managers, RPL coordinators, supervisors, coaches and mentors • technical and subject experts • English language, literacy and numeracy experts.

Unit Sector(s)

Unit sector	Assessment
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEASS403A Participate in assessment validation

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to participate in an assessment validation process.
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Application of the Unit

Application of the unit	This unit typically applies to assessors participating in assessment validation. It does not address leading the validation process.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for validation	<p>1.1. Discuss and confirm the approach to validation according to defined purposes, context, and relevant <i>assessment system policies and procedures</i></p> <p>1.2. Analyse relevant <i>benchmarks for assessment</i> and agree on the evidence needed to demonstrate competence</p> <p>1.3. Arrange <i>materials</i> for <i>validation activities</i></p>
2. Contribute to validation process	<p>2.1. Demonstrate active <i>participation</i> in validation sessions and activities using appropriate communication skills</p> <p>2.2. Participate in validation sessions and activities by applying the principles of assessment and rules of evidence</p> <p>2.3. Check all documents used in the validation process for accuracy and version control</p>
3. Contribute to validation outcomes	<p>3.1. Collectively discuss validation findings to support improvements in the quality of assessment</p> <p>3.2. Discuss, agree and record recommendations to improve assessment practice</p> <p>3.3. Implement changes to own assessment practice, arising from validation</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- planning skills to participate in validation activities within agreed timeframes
- problem-solving skills to identify information that is inconsistent, ambiguous or contradictory
- evaluation skills to:
 - determine evidence requirements from competency standards
 - review assessment process, methods and tools
 - review collected evidence
- communication skills to share information in validation meetings

Required knowledge

- how to interpret competency standards and other related assessment information to determine the evidence needed to demonstrate competence, including:
 - criterion-referenced assessment as distinct from norm-referenced assessment
 - various reasons for carrying out validation and the different approaches to validation that may be appropriate before, during and after assessment
 - critical aspects of validation, including validation of assessment processes, methods and products
 - relevant OHS legislation, codes of practice, standards and guidelines, impacting on assessment
 - legal and ethical requirements of assessors, particularly in relation to validation activities
- principles of assessment
- rules of evidence

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • actively participate in a minimum of two validation sessions or meetings which, in combination, address the critical aspects of validation using different validation approaches and activities • clearly explain purposes of validation and the legal and ethical responsibilities of assessors • collate documentation relating to validation process in a logical manner • demonstrate communication and liaison with relevant people • provide feedback and interpret documentation in validation sessions • record contribution to validation findings.
Context of and specific resources for assessment	Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided. Assessment must ensure access to: <ul style="list-style-type: none"> • assessment reports and records • other documentation relevant to validation.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Assessment system policies and procedures</i> may include:</p>	<ul style="list-style-type: none"> • candidate selection • rationale and purpose of competency-based assessment • assessment records, and data and information management • recognition of current competency, recognition of prior learning and credit arrangements • assessment reporting procedures • assessment appeals • candidate grievances and complaints • validation • evaluation and internal audit • costs and resourcing • access and equity, and reasonable adjustment • partnership arrangements • links with human resource or industrial relations system • links with overall quality management system.
<p><i>Benchmarks for assessment:</i></p>	<ul style="list-style-type: none"> • refers to criterion against which the candidate is assessed • may be one or more units of competency or assessment criteria of course curricula.
<p><i>Materials</i> may include:</p>	<ul style="list-style-type: none"> • assessment tools • samples of collected evidence • documentation outlining the basis of assessment decisions • reports and records of assessment decisions • samples of benchmarks of appropriate evidence • Assessment Guidelines of the relevant training packages • information from the evidence guide of the relevant units of competency.
<p><i>Validation activities</i> may include:</p>	<ul style="list-style-type: none"> • analysing and reviewing: <ul style="list-style-type: none"> • assessment tools • collected evidence • assessment decisions and records of assessment

RANGE STATEMENT	
	outcomes <ul style="list-style-type: none"> • other aspects of assessment policies, processes and outcomes • recording evidence of validation processes and outcomes.
<i>Participation</i> may include comparison and evaluation of:	<ul style="list-style-type: none"> • assessment practices • assessment plans • interpretation of units of competency • assessment methods and tools • assessment decisions • collected evidence.

Unit Sector(s)

Unit sector	Assessment
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEASS502A Design and develop assessment tools

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to design and develop assessment tools, including tools used in formative, summative and recognition of prior learning (RPL) assessment.
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Application of the Unit

Application of the unit	<p>An assessment tool is used to guide the collection of quality evidence in the assessment process. It includes the specific instruments for collecting evidence, as well as information about assessment methods and the procedures to be followed in conducting the assessment.</p> <p>This unit typically applies to assessors, learning resource or product developers, and training and assessment consultants.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine focus of the assessment tool	1.1. Identify target group of candidates, purposes of <i>assessment tool</i> , and <i>contexts</i> in which the tool will be used 1.2. Access relevant <i>benchmarks for assessment</i> and interpret them to establish evidence required to demonstrate competence 1.3. Identify, access and interpret <i>organisational, legal and ethical requirements</i> and relevant <i>contextualisation guidelines</i> 1.4. Identify other <i>related documentation</i> to inform assessment tool development
2. Design assessment tool	2.1. Select assessment methods that support the collection of defined evidence, taking into account the context in which the assessment will take place and meeting the principles of assessment 2.2. Enable candidates to show or support their claim for recognition of current competency through selected assessment methods 2.3. Consider different <i>assessment instruments</i> for the selected assessment methods to generate options for collection of evidence 2.4. Consider how the assessment instruments will be administered
3. Develop assessment tool	3.1. Develop specific assessment instruments that address the evidence to be collected 3.2. Define and document clear and specific <i>procedures</i> instructing assessor and candidate on the administration and use of the instruments 3.3. Consider requirements of <i>assessment system policies and procedures</i> and address storage and retrieval needs, and review, evaluation and version control procedures as part of this process
4. Review and trial assessment tool	4.1. Check draft assessment tools against <i>evaluation criteria</i> and amend as required 4.2. Trial assessment tools to validate content and applicability 4.3. Collect and document feedback from relevant people involved in trialling 4.4. Make amendments to final tool based on analysis of feedback

ELEMENT	PERFORMANCE CRITERIA
	4.5. Appropriately format and file finalised assessment tool according to assessment system policies and procedures and organisational, legal and ethical requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis and interpretation skills to review and evaluate assessment tools
- critical thinking skills to translate the interpreted competency standards and other relevant assessment information into meaningful assessment instruments
- design skills to develop different assessment tool designs
- research and evaluation skills to evaluate assessment tools on the basis of trials and feedback

Required knowledge

- principles of assessment and how they are applied when developing assessment tools
- different types and rules of evidence
- different assessment contexts and relationship to developing assessment tools
- components of competency and dimensions of competency
- contextualisation of competency standards and contextualisation guidelines
- Assessment Guidelines of training packages as relevant to developing assessment tools
- different assessment methods, their purposes and uses
- evaluation methodologies appropriate to the trial and review of assessment tools
- principles of reasonable adjustment
- relevant workplace information, including:
 - organisational policies and procedures
 - workplace tasks and activities
 - standard operating procedures
 - procedures for use of relevant personal protective equipment

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • develop assessment tools that support different assessment methods and address at least three units of competency packaged at different Australian Qualifications Framework (AQF) levels • develop assessment tools that: <ul style="list-style-type: none"> • include the instruments for collecting evidence, reflecting the principles of assessment and the rules of evidence, and the related instructions to assessor/s and candidates • show how the contextual needs of different environments are addressed • report on the trial and review of the assessment tools, including proposed changes.
Context of and specific resources for assessment	<p>Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.</p> <p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • training products, such as training packages and accredited course documentation.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Assessment tool includes:	<ul style="list-style-type: none"> • instruments to be used for gathering evidence, including: <ul style="list-style-type: none"> • profiles of acceptable performance measures • templates and proformas • specific questions or activities • evidence and observation checklists • checklists for the evaluation of work samples • recognition portfolios • candidate self-assessment materials • procedures, information and instructions for the assessor or candidate relating to the use of assessment instruments and the conditions for assessment.
Contexts of assessment/RPL may include:	<ul style="list-style-type: none"> • environment in which the assessment/RPL will be carried out, including real or simulated workplace • opportunities for collecting evidence in a number of situations • relationships between competency standards and evidence to support RPL • who carries out the assessment/RPL • relationships between competency standards and work activities in the candidate's workplace • relationships between competency standards and learning activities.
Benchmarks for assessment:	<ul style="list-style-type: none"> • refer to criteria against which the candidate is assessed which may be a unit of competency, assessment criteria of course curricula, performance specifications, or product specifications • where the benchmark is one or more units of competency the standards may be contextualised to reflect the immediate operating environment.
Organisational, legal and ethical requirements may include:	<ul style="list-style-type: none"> • assessment system policies and procedures • industrial relations systems and processes, awards and enterprise agreements • licensing and legal ramifications of assessing

RANGE STATEMENT	
	<p>competence</p> <ul style="list-style-type: none"> • reporting, recording and retrieval systems for assessment • requirements of training, assessment and validation, including the AQTF Standards for Registered Training Organisations • human resource policies, procedures and legal requirements, including: <ul style="list-style-type: none"> • anti-discrimination • equal employment opportunity • job role, responsibilities and conditions • relevant industry codes of practice • confidentiality and privacy requirements of information relating to completed assessments • OHS considerations, including: <ul style="list-style-type: none"> • ensuring assessment methods and tools incorporate appropriate measures to maintain the health, safety and welfare of candidates • ensuring OHS requirements and specified benchmarks are accounted for within evidence requirements and assessment materials • identifying hazards and relevant risk control procedures associated with the assessment environment.
<i>Contextualisation guidelines</i> relate to:	<ul style="list-style-type: none"> • relevant training package or accredited course contextualisation guidelines.
<i>Related documentation</i> may include:	<ul style="list-style-type: none"> • requirements set out in the Assessment Guidelines of the relevant training packages • information from the competency standards about: <ul style="list-style-type: none"> • resources required for assessment • assessment context • appropriate assessment methods • assessment activities identified in accredited modules derived from the relevant competency standards • assessment activities in support materials related to the relevant competency standards • any requirements of OHS, legislation, codes of practice, standards and guidelines • indicators and levels of competence of the Australian Core Skills Framework • organisational requirements for demonstration of work

RANGE STATEMENT	
	<ul style="list-style-type: none"> performance • product specifications.
<i>Assessment instrument</i> may be:	<ul style="list-style-type: none"> • profiles of acceptable performance measures • templates and proformas • specific questions or activities • evidence and observation checklists • checklists for the evaluation of work samples • recognition portfolios • candidate self-assessment materials.
<i>Procedures</i> may include:	<ul style="list-style-type: none"> • those that guide the application of the instruments, such as: <ul style="list-style-type: none"> • instructions for the candidates • instructions for administering the assessment tool, including resources needed to conduct assessment and the context for the use of tools • guidance for development or review of decision-making process • guidance on reasonable adjustments • specified variations or restrictions on the tools • rules for verifying assessment decisions • OHS requirements, for example, identified hazards in the assessment environment and appropriate controls and reporting mechanisms • information on access and equity considerations.
<i>Assessment system policies and procedures</i> may include:	<ul style="list-style-type: none"> • assessment records, and data and information management • recognition of current competency, RPL and credit arrangements • assessor needs, qualifications and maintenance of currency • assessment reporting procedures • assessment appeals • candidate grievances and complaints • validation • evaluation and internal audit • costs and resourcing • access and equity, and reasonable adjustment • partnership arrangements • links with human resource or industrial relations systems

RANGE STATEMENT	
	<ul style="list-style-type: none"> links with overall quality management system.
<i>Evaluation criteria</i> may include:	<ul style="list-style-type: none"> effectiveness and relevance to the competency standards whether assessment tool is appropriate to selected assessment methods whether assessment tool is appropriate to target group and assessment context appropriateness of language and literacy for intended audience.

Unit Sector(s)

Unit sector	Assessment
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDEL301A Provide work skill instruction

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to conduct individual and group instruction and demonstrate work skills, using existing learning resources in a safe and comfortable learning environment. The unit covers the skills and knowledge required to determine the success of both the training provided and one's own personal training performance. It emphasises the training as being driven by the work process and context.
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Application of the Unit

Application of the unit	This unit supports a wide range of applications across any workplace setting and so can be used by any organisation. Its use is not restricted to training organisations.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Organise instruction and demonstration	1.1. Gather information about <i>learner characteristics</i> and learning needs 1.2. Confirm a <i>safe learning environment</i> 1.3. Gather and check <i>instruction and demonstration objectives</i> and seek assistance if required 1.4. Access and review relevant <i>learning resources</i> and <i>learning materials</i> for suitability and relevance, and seek assistance to interpret the contextual application 1.5. Organise access to necessary equipment or physical resources required for instruction and demonstration 1.6. Notify learners of <i>details</i> regarding the implementation of the learning program and/or delivery plan
2. Conduct instruction and demonstration	2.1. Use interpersonal skills with learners to establish a safe and comfortable learning environment 2.2. Follow the learning program and/or delivery plan to cover all learning objectives 2.3. Brief learners on any <i>OHS procedures</i> and requirements prior to and during training 2.4. Use <i>delivery techniques</i> to structure, pace and enhance learning 2.5. Apply <i>coaching</i> techniques to assist learning 2.6. Use communication skills to provide information, instruct learners and demonstrate relevant work skills 2.7. Provide opportunities for practice during instruction and through work activities 2.8. Provide and discuss feedback on learner performance to support learning
3. Check training performance	3.1. Use <i>measures</i> to ensure learners are acquiring and can use new technical and generic skills and knowledge 3.2. Monitor learner progress and outcomes in consultation with learner 3.3. Review relationship between the trainer/coach and the learner and adjust to suit learner needs
4. Review personal training performance and finalise documentation	4.1. Reflect upon personal performance in providing instruction and demonstration, and document strategies for improvement 4.2. Maintain, store and secure learner records according

ELEMENT	PERFORMANCE CRITERIA
	to organisational and legal requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- verbal and non-verbal communication techniques, such as:
 - asking relevant and appropriate questions
 - providing explanations
 - demonstrating
 - using listening skills
 - providing information clearly
- safety skills to implement OHS requirements, by acting and responding safely in order to:
 - identify hazards
 - conduct prestart-up checks if required
 - observe and interpret learner behaviour that may put people at risk
- time-management, skills to:
 - ensure all learning objectives are covered
 - pace learning
- reflection skills in order to:
 - identify areas for improvement
 - maintain personal skill development
- literacy skills to:
 - complete and maintain documentation
 - read and follow learning programs and plans
 - read and analyse learner information
- technology skills to operate audio-visual and technical equipment
- interpersonal skills to:
 - engage, motivate and connect with learners
 - provide constructive feedback
 - maintain appropriate relationships
 - establish trust
 - use appropriate body language
 - maintain humour
 - demonstrate tolerance
 - manage a group
 - recognise and be sensitive to individual difference and diversity
- observation skills to:
 - monitor learner acquisition of new skills, knowledge and competency

REQUIRED SKILLS AND KNOWLEDGE

requirements

- assess learner communication and skills in interacting with others
- identify learner concerns
- recognise learner readiness to take on new skills and tasks

Required knowledge

- learner characteristics and needs
- content and requirements of the relevant learning program and/or delivery plan
- sources and availability of relevant learning resources and learning materials
- content of learning resources and learning materials
- training techniques that enhance learning and when to use them
- introductory knowledge of learning principles and learning styles
- key OHS issues in the learning environment, including:
 - roles and responsibilities of key personnel
 - responsibilities of learners
 - relevant policies and procedures, including hazard identification, risk assessment, reporting requirements, safe use of equipment and emergency procedures
 - risk controls for the specific learning environment

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. A range of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • carry out a minimum of three training sessions, involving demonstrating and instructing particular work skills for different groups; with each session addressing: <ul style="list-style-type: none"> • different learning objectives • a range of techniques and effective communication skills appropriate to the audience.
Context of and specific resources for assessment	Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Learner characteristics</i> may include:</p>	<ul style="list-style-type: none"> • language, literacy and numeracy levels • learning styles • past learning and work experiences • specific needs • workplace culture.
<p><i>Safe learning environment</i> may include:</p>	<ul style="list-style-type: none"> • exit requirements • personal protective equipment • safe access • safe use of equipment.
<p><i>Instruction and demonstration objectives</i> may include:</p>	<ul style="list-style-type: none"> • competencies to be achieved • generic and technical skills, which may be: <ul style="list-style-type: none"> • provided by the organisation • developed by a colleague • individual or group objectives • learning outcomes.
<p><i>Learning resources</i> may include:</p>	<ul style="list-style-type: none"> • any material used to support learning, such as: <ul style="list-style-type: none"> • learner and user guides • trainer and facilitator guides • example training programs • specific case studies • professional development materials • assessment materials • a variety of formats • those produced locally • those acquired from other sources.
<p><i>Learning materials</i> may include:</p>	<ul style="list-style-type: none"> • handouts for learners • materials sourced from the workplace, e.g. workplace documentation, operating procedures, and specifications.
<p><i>Details</i> may include:</p>	<ul style="list-style-type: none"> • location and time • outcomes of instruction or demonstration

RANGE STATEMENT	
	<ul style="list-style-type: none"> • reason for instruction or demonstration • who will be attending instruction session.
<i>OHS procedures</i> may include:	<ul style="list-style-type: none"> • emergency procedures • hazards and their means of control • incident reporting • use of personal protective equipment • safe work practices • safety briefings • site-specific safety rules.
<i>Delivery techniques</i> may include:	<ul style="list-style-type: none"> • coaching • demonstration • explanation • group or pair work • providing opportunities to practise skills and solve problems • questions and answers.
<i>Coaching</i> may include:	<ul style="list-style-type: none"> • learning arrangements requiring immediate interaction and feedback • on-the-job instruction and 'buddy' systems • relationships targeting enhanced performance • short-term learning arrangements • working on a one-to-one basis.
<i>Measures</i> may include:	<ul style="list-style-type: none"> • informal review or discussion • learner survey • on-the-job observation • review of peer coaching arrangements.

Unit Sector(s)

Unit sector	Delivery and facilitation
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDEL401A Plan, organise and deliver group-based learning

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to plan, organise and deliver training for individuals within a group.
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Application of the Unit

Application of the unit	This unit typically applies to a person working as an entry-level trainer, teacher or facilitator in or with a training and assessment organisation. The person will be working from a learning program developed by someone else, and structuring the learning around that program.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Interpret learning environment and delivery requirements	1.1. Access, read and interpret <i>learning program documentation</i> to determine delivery requirements 1.2. Use available information and documentation to identify group and individual learner needs and learner characteristics 1.3. Identify and assess constraints and risks to delivery 1.4. Confirm personal role and responsibilities in planning and delivering training with relevant personnel
2. Prepare session plans	2.1. Refine existing learning objectives according to program requirements and specific needs of individual learners 2.2. Develop <i>session plans</i> and document these for each segment of the learning program 2.3. Use knowledge of learning principles and theories to generate ideas for managing session delivery
3. Prepare resources for delivery	3.1. Contextualise existing learning materials to meet the needs of the specific learner group 3.2. Finalise learning materials and organise facility, technology and equipment needs in time for delivery of learning sessions 3.3. Confirm overall delivery arrangements with relevant personnel
4. Deliver and facilitate training sessions	4.1. Conduct each session according to session plan, modified where appropriate to meet learner needs 4.2. Use the diversity of the group as another resource to support learning 4.3. Employ a range of delivery methods as training aids to optimise learner experiences 4.4. Demonstrate effective facilitation skills to ensure effective participation and group management
5. Support and monitor learning	5.1. Monitor and document learner progress to ensure outcomes are being achieved and individual learner needs are being met 5.2. Make adjustments to the delivery sessions to reflect specific needs and circumstances 5.3. Manage <i>inappropriate behaviour</i> to ensure learning can take place 5.4. Maintain and store learner records according to

ELEMENT	PERFORMANCE CRITERIA
	organisational requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- presentation skills to ensure delivery is engaging and relevant, including:
 - synthesising information and ideas
 - preparing equipment, such as data projectors and computer presentation applications
 - speaking with appropriate tone and pitch
 - using language appropriate to audience
 - encouraging and dealing appropriately with questions
- group facilitation skills to ensure that:
 - every individual has an opportunity for participation and input
 - group cohesion is maintained
 - behaviour that puts others at risk is observed, interpreted and addressed
 - discussion and group interaction are enhanced
- conflict resolution and negotiation skills to:
 - identify critical points, issues, concerns and problems
 - identify options for changing behaviours
- oral communication and language skills to:
 - motivate learners to transfer skills and knowledge
 - engage with the learner
- interpersonal skills to maintain appropriate relationships and ensure inclusivity
- observation skills to monitor individual and group progress

Required knowledge

- introductory knowledge of learning theories
- sound knowledge of learning principles
- sound knowledge of learner styles
- industry area and subject matter of the delivery
- learner group profile, including characteristics and needs of individual learners in the group
- content and requirements of the learning program and/or delivery plan
- different delivery methods and techniques appropriate to face-to-face group delivery
- techniques for the recognition and resolution of inappropriate behaviours
- behaviours in learners that may indicate learner difficulties
- organisational record-management systems and reporting requirements
- evaluation and revision techniques

REQUIRED SKILLS AND KNOWLEDGE

- specific resources, equipment and support services available for learners with special needs
- relevant policy, legal requirements, codes of practice and national standards, including commonwealth and state or territory legislation that may affect training and assessment in the vocational education and training sector
- OHS relating to the facilitation of group-based learning, including:
 - assessment and risk control measures
 - reporting requirements for hazards
 - safe use and maintenance of relevant equipment
 - emergency procedures
 - sources of OHS information
 - role of key workplace persons
- policies and procedures relevant to the learning environment

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>Assessment must address the scope of this unit and reflect all components of the unit. A range of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • facilitate group-based learning by preparing and delivering a series of training sessions, including: <ul style="list-style-type: none"> • at least two consecutive sessions, of a duration commensurate with a substantive training session (e.g. 40-60 minutes), that follow one of the learning program designs • at least one session delivered to a different learner group, with evidence of how the characteristics and needs of this group were addressed • identify and respond to diversity and individual needs • access and use documented resources and support personnel to guide inclusive practices.
<p>Context of and specific resources for assessment</p>	<p>Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.</p> <p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • training products, such as training packages and accredited course documentation.
<p>Method of assessment</p>	
<p>Guidance information for assessment</p>	<p>For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).</p>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Learning program documentation</i> may include:</p>	<ul style="list-style-type: none"> • competencies or other benchmarks to be achieved • for each chunk or segment of the learning program: <ul style="list-style-type: none"> • specific learning outcomes derived from the benchmarks • overview of content to be covered • learning resources, learning materials and activities • delivery methods • number and duration of training sessions or classes required, and overall timelines • OHS issues to be addressed in delivery • identification of assessment points to measure learner progress • assessment methods and tools to be used to collect evidence of competency, where assessment is required.
<p><i>Session plans</i> may include:</p>	<ul style="list-style-type: none"> • outline of objectives and content to be addressed • plan of delivery methods and learning activities to be used within the session • timelines and duration for each learning activity • formative assessment points and opportunities • learning materials required.
<p><i>Inappropriate behaviour</i> may include:</p>	<ul style="list-style-type: none"> • violent or inappropriate language • verbal or physical abuse or bullying • insensitive verbal or physical behaviour towards other learners or the trainer/facilitator, including cultural, racial, disability or gender-based insensitivities • dominant or overbearing behaviour • disruptive behaviour • non-compliance with safety instructions.

Unit Sector(s)

Unit sector	Delivery and facilitation
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDEL402A Plan, organise and facilitate learning in the workplace

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to plan, organise and facilitate learning for individuals in a workplace.
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Application of the Unit

Application of the unit	This unit typically applies to a person working as an entry level trainer, teacher or facilitator, team leader or workplace supervisor, or any employee responsible for guiding learning through work.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish effective work environment for learning	1.1. Establish and agree upon objectives and scope of the work-based learning 1.2. Analyse work practices and routines to determine their effectiveness in meeting established learning objectives 1.3. Identify and address <i>OHS implications</i> of using work as the basis for learning
2. Develop a work-based learning pathway	2.1. Address <i>contractual requirements</i> and responsibilities for learning at work 2.2. Arrange for integration and monitoring of external learning activities with the <i>work-based learning pathway</i> 2.3. Obtain agreement from relevant personnel to implement the work-based learning pathway
3. Establish the learning-facilitation relationship	3.1. Identify context for learning and individual's learning style 3.2. Select appropriate technique or process to facilitate learning and explain the basis of the technique to learner 3.3. Develop, document and discuss <i>individualised learning plan</i> with learner 3.4. Access, read and interpret documentation outlining the OHS responsibilities of the various parties in the learning environment 3.5. Monitor supervisory arrangements appropriate to learner's levels of knowledge, skill and experience to provide support and encouragement and ensure learner's health and safety
4. Implement work-based learning pathway	4.1. Sequence introduction of workplace tasks, activities and processes to reflect the agreed work-based learning pathway 4.2. Explain objectives of work-based learning and the processes involved to learner 4.3. Encourage learner to take responsibility for learning and to self-reflect 4.4. Develop techniques that facilitate learner's transfer of skills and knowledge
5. Maintain and develop the learning/facilitation	5.1. Prepare for each session 5.2. Structure learning activities to support and reinforce new learning, build on strengths, and identify areas

ELEMENT	PERFORMANCE CRITERIA
relationship	<p>for further development</p> <p>5.3. Observe learner cues and change approaches where necessary to maintain momentum</p> <p>5.4. Practise <i>ethical behaviour</i> at all times</p> <p>5.5. Monitor effectiveness of the learning/facilitation relationship through regular meetings between the parties</p>
6. Close and evaluate the learning/facilitation relationship	<p>6.1. Carry out the closure smoothly, using appropriate interpersonal and communication skills</p> <p>6.2. Seek feedback from learner on the outcomes achieved and value of the relationship</p> <p>6.3. Evaluate and document process, including <i>impact, self evaluation and reflection</i>, and file according to legal and organisational requirements</p>
7. Monitor and review the effectiveness of the work-based learning pathway	<p>7.1. Document work performance and learning achievement and keep records according to organisational requirements</p> <p>7.2. Evaluate effectiveness of the work-based pathway against the objectives, processes and techniques used</p> <p>7.3. Recommend improvements to work-based practice in light of the review process</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- oral communication and language skills to:
 - motivate the learner
 - transfer skills and knowledge
- interpersonal skills to maintain appropriate relationships
- observation skills to monitor individual progress
- literacy skills to:
 - read and interpret organisational documents, legal documents and contracts
 - complete and maintain documentation
- organisational skills to provide guidance and feedback to individuals
- communication skills, including:
 - using effective verbal and non-verbal language
 - using critical listening and questioning techniques
 - giving constructive and supportive feedback
 - assisting learners to paraphrase advice or instructions back to the trainer/facilitator
 - providing clear and concrete options and advice
 - using appropriate industry/profession terminology and language
 - ensuring language, literacy and numeracy used is appropriate to learners

Required knowledge

- systems, processes and practices within the organisation where work-based learning is taking place
- operational demands of the work and impact of changes on work roles
- organisational work culture, including industrial relations environment
- systems for identifying skill needs
- introductory knowledge of different learning styles and how to encourage learning in each, for example:
 - visual learners
 - audio learners
 - kinaesthetic learners
 - theoretical learners
- relevant policy, legislation, codes of practice and national standards that may affect training and assessment in the vocational education and training sector
- OHS relating to the work role, including:
 - hazards relating to the industry and specific workplace

REQUIRED SKILLS AND KNOWLEDGE

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| <ul style="list-style-type: none">• reporting requirements for hazards and incidents• specific procedures for work tasks• safe use and maintenance of relevant equipment• emergency procedures• sources of OHS information |
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Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • prepare and facilitate work-based learning • provide evidence of a minimum of two examples of developing work-based learning pathways, that include: <ul style="list-style-type: none"> • identifying needs for learning • analysing work practices, work environment and work activities • organising and allocating work in a way that reflects learning needs and provides effective learning opportunities through work processes • provide a minimum of two examples of a learning facilitation relationship being conducted: <ul style="list-style-type: none"> • with different individuals • demonstrating communication skills and flexibility • demonstrating one or more of the processes or techniques identified.
Context of and specific resources for assessment	<p>Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.</p> <p>Assessment must ensure access to information about work activities.</p>
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>OHS implications</i> may include:</p>	<ul style="list-style-type: none"> • OHS obligations • workplace OHS policies and procedures • ensuring work practices, routines and proposed changes do not pose a risk to learners and others.
<p><i>Contractual requirements</i> may include:</p>	<ul style="list-style-type: none"> • training plans under apprenticeships/traineeships • requirements of government-funded training programs, such as Workplace English Language and Literacy (WELL).
<p><i>Work-based learning pathway</i> may include:</p>	<ul style="list-style-type: none"> • identifying specific goals for work-based learning • identifying job tasks or activities to be included in learning process • appropriate sequencing of job tasks/activities to reflect learner incremental development • direct guidance and modelling from experienced co-workers and experts • opportunities for practice.
<p><i>Individualised learning plan</i> may include:</p>	<ul style="list-style-type: none"> • information about individual's learning style, learner characteristics, and the context for learning • clear boundaries and expectations of the learning/facilitation relationship • documented equity or additional support needs for the learner • performance benchmarks to be achieved • activities and processes which together will achieve the benchmarks.
<p><i>Ethical behaviour</i> includes:</p>	<ul style="list-style-type: none"> • trust • integrity • privacy and confidentiality of the session • following organisational policies • knowing own limitations • having a range of other intervention referrals ready when needed • honesty

RANGE STATEMENT	
	<ul style="list-style-type: none"> • fairness to others.
Impact may be:	<ul style="list-style-type: none"> • successful achievement, rate of achievement, or lack of achievement of identified goals • achievement of other outcomes as a result of the relationship • development of new goals • new or increased motivation to learn • greater capacity to learn • increase in learner's self-confidence.
Self-evaluation and reflection may include:	<ul style="list-style-type: none"> • asking critical questions about: <ul style="list-style-type: none"> • own ability • what worked or didn't work • how the relationship building process could be improved • reviewing records and journals on sessions and critically evaluating own performance • reviewing feedback from learner and identifying critical aspects and areas for improvement.

Unit Sector(s)

Unit sector	Delivery and facilitation
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDEL404A Mentor in the workplace

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to establish and develop a professional mentoring relationship with a learner, in particular an apprentice or trainee employed by, or undertaking work placement in, a workplace. It includes establishing the need for mentoring, developing a mentoring plan/framework, facilitating and monitoring the mentoring relationship, and evaluating the effectiveness of mentoring.
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Application of the Unit

Application of the unit	This unit typically applies to workplace supervisors or other work colleague with responsibility for mentoring in the workplace.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Develop a mentoring plan	1.1. Identify scope and boundaries of the <i>mentoring</i> relationship according to organisational procedures 1.2. Establish <i>ground rules</i> and negotiate realistic expectations 1.3. Establish and maintain confidentiality of the relationship in accordance with <i>legislation, policy and procedures</i>
2. Facilitate mentoring relationship	2.1. Develop learner's confidence, self-esteem, respect and trust in the mentoring relationship 2.2. Share personal experiences and knowledge with the person being mentored according to agreed objectives 2.3. Support the person being mentored to develop and use skills in problem solving and decision making 2.4. Use personal and professional networks to assist the person being mentored 2.5. Provide information, guidance and constructive guidance to enhance engagement in the workplace 2.6. Use <i>techniques for resolving differences</i> without damaging the relationship, and obtain assistance according to organisational policy and procedures
3. Monitor mentoring relationship	3.1. Provide planning assistance and guidance as requested by the person being mentored in a form and style to suit their requirements 3.2. Provide feedback to the person being mentored on progress towards achieving the expectations and goals of the mentoring process 3.3. Recognise and discuss changes in the <i>mentoring relationship</i> with appropriate <i>stakeholders</i> 3.4. Negotiate and manage closure of the mentoring arrangement once objectives have been met
4. Evaluate effectiveness of mentoring	4.1. Establish and discuss <i>benefits</i> gained from the mentoring process 4.2. Reflect on and articulate the personal benefits gained from providing mentoring 4.3. Identify and report the outcomes of the mentoring arrangement and the <i>benefits to the organisation</i> according to organisational policy and procedures to improve the mentoring system or program

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- planning and time-management skills to mentor in a workplace
- oral communication and language skills to motivate learners
- organisational skills to provide guidance and feedback to individuals
- interpersonal skills to:
 - engage in relationship building, including building trust and maintaining confidentiality
 - respond to diversity, including gender and disability
- communication skills to use a range of communication strategies, including listening, questioning, and giving and receiving feedback
- initiative and enterprise skills to apply procedures relating to OHS and environmental legislation in the context of workplace mentoring

Required knowledge

- relevant policy, legislation, codes of practice and national standards likely to impact on the provision of workplace mentoring
- training contracts and responsibilities of employer, registered training organisation (RTO) and funding body
- training plans and responsibilities
- training products and strategies for learning
- mentoring methodologies and strategies
- acceptable behaviour in the mentoring relationship
- equal employment opportunity, equity and diversity principles
- OHS relating to the work role, including:
 - hazards relating to the industry and specific workplace
 - reporting requirements for hazards and incidents
 - specific procedures for work tasks
 - safe use and maintenance of relevant equipment
 - emergency procedures
 - sources of OHS information

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • prepare a mentoring plan between the mentor and learner that reflects the scope and substance expected within a plan prepared for a learner undertaking a contracted apprenticeship or traineeship • facilitate at least three mentoring sessions • provide information on sessions, including comments and notes from both mentor and learner.
Context of and specific resources for assessment	Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Mentoring</i> may include:</p>	<ul style="list-style-type: none"> • long-term focus on personal growth and learning • wide range of learning oriented to: <ul style="list-style-type: none"> • support • guidance in personal or career growth • relationship, not just a procedure or activity • one person professionally assisting the career development of another.
<p><i>Ground rules</i> may include:</p>	<ul style="list-style-type: none"> • training for mentoring partners • mentoring agreement • active involvement of both partners in the mentoring process.
<p><i>Legislation, policy and procedures</i> may include:</p>	<ul style="list-style-type: none"> • commonwealth and state or territory legislation and regulations, such as: <ul style="list-style-type: none"> • privacy legislation • equal employment opportunity, anti-discrimination and harassment legislation • OHS legislation • user choice • organisational policy, procedures and protocols.
<p><i>Techniques for resolving differences</i> may include:</p>	<ul style="list-style-type: none"> • finding a mutually beneficial solution • self-disclosure • inviting discussion • providing explanations • accessing assistance.
<p><i>Mentoring relationship</i> may include:</p>	<ul style="list-style-type: none"> • informal workplace development program • formal mentoring process associated with a contracted apprenticeship or traineeship, involving a formal training plan.
<p><i>Stakeholders</i> may include:</p>	<ul style="list-style-type: none"> • trainee or apprentice • manager or supervisor • RTO • learning support services, including assistive technology

RANGE STATEMENT	
	and diagnostic testing <ul style="list-style-type: none"> • funding organisation • supplier of learning resources.
<i>Benefits</i> may include:	<ul style="list-style-type: none"> • insights into organisational culture, attitudes and expected behaviours • supportive environment in which successes and failures can be evaluated • networking opportunities • development of workplace competence and self-confidence • recognition and job satisfaction • mutual respect.
<i>Benefits to the organisation</i> may include:	<ul style="list-style-type: none"> • increased productivity • new competencies in the person being mentored • staff motivation • more committed, involved and responsible learners.

Unit Sector(s)

Unit sector	Delivery and facilitation
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDES401A Design and develop learning programs

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to conceptualise, design, develop and review learning programs to meet an identified need for a group of learners. The unit addresses the skills and knowledge needed to identify the parameters of a learning program, determine the design, outline the content and review its effectiveness.
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Application of the Unit

Application of the unit	This unit typically applies to a trainer or facilitator who designs or develops learning programs. A learning program can be discrete, providing a planned learning approach that relates to specific learning and training needs, or it may form part of the learning design for a qualification.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Define parameters of the learning program	1.1. Clarify <i>purpose</i> and type of learning program with key stakeholders 1.2. Access and confirm the competency standards and <i>other training specifications</i> on which to base the learning program 1.3. Identify language, literacy and numeracy requirements of the program 1.4. Identify and consider characteristics of the target learner group
2. Work within the vocational education and training (VET) policy framework	2.1. Access relevant <i>VET policies</i> and frameworks, and apply to work practices 2.2. Identify changes to training packages and accredited courses and apply these to program development 2.3. Conduct work according to organisational quality assurance policies and procedures
3. Develop program content	3.1. Research, develop and document specific subject matter content according to agreed design options 3.2. Evaluate existing learning resources for content relevance and quality 3.3. Specify assessment requirements of the learning program
4. Design structure of the learning program	4.1. Break the learning content into manageable segments and document timeframe for each segment 4.2. Determine and confirm <i>delivery strategies</i> and required assessment methods and tools 4.3. Document complete learning program in line with organisational requirements 4.4. Review complete program with key stakeholders and adjust as required 4.5. Ensure a safe learning progression by analysing risks in the learning environment and including a risk control plan

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- organisational skills to ensure resources are available and suitable
- evaluation skills to determine the time required for each learning segment and the overall timelines of the learning program
- cognitive skills to develop the learning program content and design its structure
- language and literacy skills to read and interpret a range of documentation, including technical and subject matter documents, references and texts

Required knowledge

- information about training package developers and course accreditation agencies responsible for specific learning program parameters
- training packages and relevant competency standards to be used as the basis of the learning program
- other performance standards and criteria to be used as the basis of the learning program, where relevant
- distinction and relationship between a training package/accredited course, learning strategy and learning program, where linked
- different purposes and focus of learning programs
- sound knowledge of learning principles
- instructional design principles relating to different design options for learning program design and structure
- availability and types of different relevant learning resources, learning materials and pre-developed learning activities
- methodology relating to developing and documenting new learning activities and related learning materials
- different delivery modes and methods
- relevant policies, legal requirements, codes of practice and national standards, including commonwealth and state or territory legislation that may affect training and assessment in the VET sector
- relevant OHS knowledge relating to the work role, and OHS considerations that need to be included in the learning program

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. Arrange of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • design, develop and review learning programs within the VET context • prepare and develop a minimum of two learning programs: <ul style="list-style-type: none"> • that contain differentiated learning program designs to reflect particular needs, contexts and timelines • at least one of which must be based on competency standards or accredited courses and must cover at least one entire unit of competency or accredited course module.
Context of and specific resources for assessment	Evidence must be gathered in the workplace whenever possible. Where no workplace is available, a simulated workplace must be provided.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Purpose</i> may include:</p>	<ul style="list-style-type: none"> • developing vocational competency or vocational skills • developing language, literacy and numeracy skills • developing general education • meeting legislative, licensing and registration requirements, such as OHS requirements.
<p><i>Other training specifications</i> may include:</p>	<ul style="list-style-type: none"> • curriculum specifications • product specifications • organisational work requirements and training needs • induction needs • language, literacy and numeracy development needs • regulatory and licensing requirements.
<p><i>Vocational education and training policies</i> may include:</p>	<ul style="list-style-type: none"> • policies and procedures set by national organisations, such as the National Quality Council • Australian Quality Training Framework • other relevant policies.
<p><i>Delivery strategies</i> may include:</p>	<ul style="list-style-type: none"> • focus of delivery in terms of size and type of group • context of delivery, for example: <ul style="list-style-type: none"> • in the workplace • in a training room • in a community setting • mode of delivery, for example: <ul style="list-style-type: none"> • face-to-face • online • blended delivery mode • delivery methods, for example: <ul style="list-style-type: none"> • lock-step, learner-paced and mixed • interactive, participative and collaborative • blended delivery methods.

Unit Sector(s)

Unit sector	Learning design
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAEDES402A Use training packages and accredited courses to meet client needs

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to use training packages and accredited courses as tools to support industry, organisation and individual competency development needs.
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Application of the Unit

Application of the unit	This unit typically applies to a person working in or with training and/or assessment organisations as an entry-level trainer, teacher, facilitator or assessor. It assumes that the person is working from a pre-defined training product, such as a training package or accredited course, and applying that product to meet client needs.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select appropriate training package or accredited course	1.1. Confirm training and/or assessment needs of <i>client</i> 1.2. Identify and source training packages and/or accredited courses which could satisfy client needs 1.3. Use training products in line with the <i>training and assessment organisation's quality assurance policies</i> and procedures
2. Analyse and interpret the qualifications framework	2.1. Read and interpret qualification rules 2.2. Review and determine applicable licensing requirements and prerequisites 2.3. Determine suitable electives that meet client needs and job roles
3. Analyse and interpret units of competency and accredited modules	3.1. Select individual unit or accredited module to meet client needs 3.2. Read, analyse and interpret all parts of the unit or accredited module for application to client needs 3.3. Analyse links between unit and/or accredited module to develop effective applications for the client 3.4. Document analysis of unit or accredited module in a clear and accessible manner
4. Contextualise units and modules for client applications	4.1. Use information from the client to <i>contextualise the unit</i> or accredited module to meet client needs 4.2. Use advice on contextualisation produced by the training package developer or course developer to meet client needs
5. Analyse and interpret assessment guidance	5.1. Read, analyse and apply the assessment guidance of the relevant training package or accredited course 5.2. Determine any special requirements for assessment or reasonable adjustment to suit client needs

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- communication and interpersonal skills to collaborate with others in using training products
- planning skills to develop a structure for a particular application of training packages and accredited courses
- cognitive skills to analyse, interpret and apply the various components of selected training packages and accredited courses
- research skills to analyse and interpret training package and accredited course content to meet client needs

Required knowledge

- Australian Qualifications Framework (AQF) guidelines, including characteristics of AQF qualification levels
- functions and responsibilities of training package developers and course accreditation agencies, and their roles as key vocational education and training (VET) organisations
- dimensions of competency
- format and structure of accredited courses
- format and structure of competency standards
- function of training packages and accredited curriculum as benchmarks in a competency-based VET training and assessment system
- methodology relating to analysing and using competency standards for a range of applications and purposes to meet the needs of a diverse range of VET clients
- language and terminology used in training packages and accredited courses
- parts of training packages that can be contextualised and parts that cannot
- structure of training packages and the role and purpose of each endorsed component
- sources of training package information

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must address the scope of this unit and reflect all components of the unit. A range of appropriate assessment methods and evidence-gathering techniques must be used to determine competency. A judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: <ul style="list-style-type: none"> • analyse a training package and or accredited course to examine its component parts, identify relevant units of competency or modules, and contextualise those to meet a specific client need • demonstrate a minimum of two examples of analysing training specifications, including at least one training package; the other may be another training package or an accredited course that meets a specific client need.
Context of and specific resources for assessment	Evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided. Assessment must ensure access to: <ul style="list-style-type: none"> • training products, such as training packages and accredited course documentation.
Method of assessment	
Guidance information for assessment	For further information about assessment of this and other TAE units, refer to relevant implementation guidance published on the IBSA website (www.ibsa.org.au).

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p><i>Client</i> may include:</p>	<ul style="list-style-type: none"> • individual learners • candidates for assessment • organisations or enterprises with specific training needs.
<p><i>Training and assessment organisation</i> may include:</p>	<ul style="list-style-type: none"> • registered training organisation (RTO) • organisation working in a partnership arrangement with an RTO to provide recognised training and assessment services • organisation that provides non-recognised training and assessment services.
<p><i>Quality assurance policies</i> may include:</p>	<ul style="list-style-type: none"> • Australian Quality Training Framework requirements as they apply to RTOs • organisational internal quality policies and procedures.
<p><i>Contextualising units:</i></p>	<ul style="list-style-type: none"> • means linking the requirements of the competency standard to the work environment of a particular client or client group • may include: <ul style="list-style-type: none"> • identifying specific types of tools and equipment relevant to the competency • identifying specific organisational policies, procedures, processes and forms relevant to the competency • linking organisation-specific terminology to the competency • identifying specific people relevant to the competency.

Unit Sector(s)

Unit sector	Learning design
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TAETAS501A Undertake organisational training needs analysis

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit specifies the competency required to undertake a training needs analysis (TNA) to identify the training and assessment needs of an organisation.
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Application of the Unit

<p>Application of the unit</p>	<p>Training needs analyses are used to assist organisations identify their training needs and develop relevant solutions.</p> <p>This competency involves identifying organisational/client needs through data investigation, using reliable and valid data analysis methods to interpret the data and providing advice and recommendations on training and assessment services required to meet the identified training needs. This includes identifying future support and services that the client will need to implement the recommendations.</p> <p>A training needs analysis can be used to identify the training needs of different levels across an organisation and/or for individuals. This unit focuses on identifying the training and assessment needs at the organisational level. Individual training needs analysis is covered in a number of units in this Training Package.</p> <p>Achievement of this unit requires competency in the development and implementation of a variety of training and assessment methods and knowledge of current processes and practices involved in the implementation of Training Packages.</p> <p>The competency specified in this unit is typically required by trainers/facilitators, assessors, teachers, consultants, human resource managers, program coordinators and managers.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

<p>Prerequisite units</p>		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Identify organisational/client needs</p>	<p>1.1. Discussions are held with <i>clients</i> to identify and verify <i>client objectives, expectations and organisational requirements</i></p> <p>1.2. Appropriate <i>communication and interpersonal skills</i> are used to develop a professional relationship with the client</p> <p>1.3. <i>Existing or potential issues</i> to be addressed are identified and analysed to determine the impact on client objectives and requirements</p> <p>1.4. <i>Resources</i> are identified and accessed in accordance with organisational requirements</p> <p>1.5. A <i>consultation plan</i> is developed with <i>relevant persons</i> and is negotiated and agreed by the client</p>
<p>2. Conduct training needs analysis</p>	<p>2.1. Reliable and appropriate methods <i>for collecting information and data</i> on current, emerging and future training needs are employed which make efficient use of resources</p> <p>2.2. Work is analysed to determine skills and competencies required for effective performance</p> <p>2.3. Information and data is <i>gathered</i> to determine current skills/competency profile of staff in accordance with legal/organisational/ethical requirements</p> <p>2.4. Information is analysed using reliable and valid <i>data analysis methods</i> to determine skills competency match and identification of current/emerging/future organisational training needs</p> <p>2.5. Conclusions on organisational training needs are supported by verifiable evidence and are consistent with research objectives</p>
<p>3. Provide advice to clients</p>	<p>3.1. Clients are provided with clear <i>advice</i> and recommendations on training and assessment needs</p> <p>3.2. Clients are provided with <i>options</i> for meeting identified training needs</p> <p>3.3. Feedback and comments on suitability and sufficiency of advice and recommendations are obtained</p> <p>3.4. Final report is completed and <i>presented</i> to the client, and processed in accordance with <i>legal/organisational requirements</i></p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- research skills to:
 - design research processes for collecting reliable and valid information
 - objectively observe processes
- literacy skills to:
 - prepare written reports incorporating advice and recommendations
 - critically evaluate the relevance, reliability and authority of information
- integrative thinking skills to:
 - conceptualise and synthesise issues by 'making links'
 - explore issues from a number of different or contrasting points of view
- observation skills to:
 - identify current work practices
 - analyse future training requirements
- consultation skills to:
 - analyse and determine client requirements
 - ensure full participation of relevant individuals and groups in providing feedback on recommendations
- communication skills to:
 - interpret information from a variety of people
 - promote and explain recommended development activities
- interpersonal skills to:
 - maintain appropriate relationships with stakeholders
 - establish trust
 - be open to the opinion of others
 - actively listen
- numerical skills to:
 - document and present statistical information to illustrate key aspects of a problem or question
- negotiation and facilitation skills to:
 - work with people at all levels of the organisation to ensure client objectives are being met
 - support ideas in a polite manner when challenged
- problem solving skills to:
 - apply effective approaches to defining and analysing issues

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- competency standards and Training Packages/ accredited courses to:
 - match suggested training to client needs
 - work with competency standards to design training solutions
 - work within Australian Quality Training Framework (AQTF) requirements
- AQTF Standards for Registered Training Organisations (RTOs)
- risk identification and management strategies
- industry and enterprise knowledge, for example:
 - relevant assessment and training strategies
 - client organisation's culture and expectations
 - underpinning skills and knowledge likely to be required in the industry
 - changes likely to impact on the industry/sector and training implications of those
- range of evaluation and research methodologies, for example:
 - literature research
 - DACUM analysis
 - Delphi analysis
 - interviewing techniques
- the external environment relating to social, political, economic and technological developments, for example:
 - new developments in adult learning techniques
 - available funding
- principles of intellectual property, for example:
 - various ways to give appropriate credit when using another's ideas or work
- training and development strategies
- learning organisation concepts
- change management concepts/strategies
- data retrieval and interpretation systems, for example:
 - training needs analysis
 - analysis of job functions
- relevant policy, legislation, codes of practice and national standards including Commonwealth and state/territory legislation, for example:
 - plagiarism
 - Training Packages/competency standards/other criteria
 - copyright and privacy laws in terms of electronic technology
 - security of information
 - recording information and confidentiality requirements
 - duty of care

REQUIRED SKILLS AND KNOWLEDGE

- the industrial relations system, industry/workplace relations, and industrial awards/enterprise agreements
- anti-discrimination including equal opportunity, racial vilification and disability discrimination
- vocational education and training
- OHS relating to undertaking an organisational training needs analysis, including:
 - sources of information on OHS as it applies to the training and/or assessment organisation
 - risks that should be addressed by a training and/or assessment organisation
 - legislative requirements for OHS record keeping and reporting requirements
 - OHS obligations of the training and/or assessment organisation, the trainer/facilitator, assessor and learner
 - requirements for consultation under OHS legislation

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

To demonstrate competency against this unit candidates must be able to provide evidence that they can consult effectively with clients to identify their needs and provide recommendations for training and/or assessment.

The advice provided as evidence must show how consultative processes were used to verify client needs; detail research methods undertaken to identify suitable training and/or assessment; include an implementation plan for the training needs analysis; include presentations outlining advice and recommendations; and identify resource requirements and future support delivery timelines.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- an outline of client needs
- a report of research undertaken
- recommendations made to the client
- a plan outlining the delivery of future services, if required

Context of and specific resources for assessment

Assessment must ensure:

- assessment must address the scope of this unit and reflect all components of the unit i.e. the Elements, Performance Criteria, Range Statement, , Employability Skills
- a range of appropriate assessment methods/evidence gathering techniques is used to determine competency
- evidence must be gathered in the workplace wherever possible. Where no workplace is available, a simulated workplace must be provided
- the evidence collected must relate to a number of performances assessed at different points in time and in a learning and assessment pathway these must be separated by further learning and practice
- assessment meets the rules of evidence
- a judgement of competency should only be made when the assessor is confident that the required

EVIDENCE GUIDE	
	<p>outcomes of the unit have been achieved and that consistent performance has been demonstrated</p> <p>Resource implications for assessment include:</p> <ul style="list-style-type: none"> • access to competency standards • access to assessment materials and tools • access to suitable assessment venue/equipment • workplace documentation • cost/time considerations • personnel requirements
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • Products that could be used as evidence include: <ul style="list-style-type: none"> • report highlighting outcomes of workshops and stakeholder consultation • report detailing recommendations • feedback gathered • consultation/communication plans • Processes that could be used as evidence include: <ul style="list-style-type: none"> • how information was collected • how relevant data was analysed • how future support was determined
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • <i>TAATAS503B Manage contracted work</i> • <i>TAACMQ504B Determine and manage scope of training and/or assessment services</i>

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Clients may be:

- internal or external
- an enterprise
- a department/division
- an industry sector
- a professional association
- a community organisation
- a government organisation

Client objectives and expectations may include:

- focus on individual learner objectives, such as:
 - new skills
 - specific competencies
 - target qualifications
 - career advancement
- focus on productivity improvement
- focus on administrative and records management systems
- focus on satisfying legislative or government regulatory requirements
- involve specific learning support systems
- reflect individualised organisational training and skill requirements
- be affected by national and state/territory policy and funding parameters

Organisational requirements may include:

- quality assurance and/or procedures manuals
- goals, objectives, plans, systems and processes
- legal and organisational policy/guidelines and requirements
- recording and reporting procedures
- business and performance plans
- access and equity principles and practices
- confidentiality requirements
- ethical standards
- collaborative/partnership arrangements
- occupational health and safety policies,

RANGE STATEMENT	
	<ul style="list-style-type: none"> procedures and programs • quality and continuous improvement processes and standards • defined resource parameters
<i>Communication and interpersonal skills</i> may relate to:	<ul style="list-style-type: none"> • verbal or non-verbal language • two-way interaction • constructive feedback • active listening • questioning to clarify and confirm understanding • accurately interpreting non-verbal and verbal messages • use of language and concepts appropriate to cultural differences • clear and concrete presentations of options • culturally inclusive and sensitive engagement techniques
<i>Existing or potential issues</i> may include:	<ul style="list-style-type: none"> • time to release employees from work to attend consultations • access to a range of employees • individual concerns/issues/negativities that may be brought to consultation sessions
<i>Resources</i> may include:	<ul style="list-style-type: none"> • people • finances • business/organisational needs • equipment • technology
<i>Consultation plan</i> may include:	<ul style="list-style-type: none"> • purpose and aims of consultation • selection of personnel/other relevant persons • protocol for consultations with employees • industrial relations considerations • confidentiality/privacy/ethical considerations • reporting arrangements • resources required • timeframes • other organisational needs
<i>Relevant persons</i> may include:	<ul style="list-style-type: none"> • clients • employees • government agencies • organisational managers/supervisors

RANGE STATEMENT	
	<ul style="list-style-type: none"> • organisational training and assessment coordinators • industry groups • employer/employee representatives • state/territory registering body representatives • external consultants
<p><i>Methods for collecting information and data</i> may include:</p>	<ul style="list-style-type: none"> • surveys, interviews, discussions, focus groups • critical incident technique • observations of personnel at work • accessing relevant government legislation, policies and practices • analysing industry and/or enterprise skills audit reports • analysing human resource management records/performance management records • reviewing industry publications or reports • concept mapping • job and task analysis • analysing assessment and/or training records
<p>Information and data may be <i>gathered</i> at the following levels:</p>	<ul style="list-style-type: none"> • organisational • workgroup/work unit • individual
<p><i>Data analysis methods</i> may include:</p>	<ul style="list-style-type: none"> • qualitative/quantitative processes • feedback on results • review of previous research • peer review • data sampling • statistical analysis
<p><i>Advice</i> may relate to:</p>	<ul style="list-style-type: none"> • short-term and/or long-term recommendations • specified outcomes and strategies • resource requirements • provision of training and/or assessment services • design or review of training programs • contextualisation of industry competency standards to meet client goals • administrative and management systems • statutory and mandatory requirements • competency standards and performance assessment systems • national standards

RANGE STATEMENT	
	<ul style="list-style-type: none"> • performance management systems • training and professional development principles • reporting and accountability requirements and processes
<i>Options</i> may include:	<ul style="list-style-type: none"> • developing in-house capacity to meet identified needs • identifying training and/or assessment organisations to meet needs • identifying specific units of competency, qualifications/courses to meet needs • consultancy services • timelines • urgency
Report may be <i>presented</i> using:	<ul style="list-style-type: none"> • visual, audio-visual, graphics, multimedia • demonstrations/presentations • written text or equivalent medium • plans, diagrams, charts, posters
<i>Legal requirements</i> may include:	<ul style="list-style-type: none"> • standards for training and/or assessment organisation • state or territory registering body requirements • award and enterprise agreements and relevant industrial arrangements • confidentiality and privacy requirements • scope of registration • relevant legislation from all levels of government that affects business operation, including: <ul style="list-style-type: none"> • OHS issues • environmental issues • equal opportunity • industrial relations and anti-discrimination • relevant industry codes of practice

Unit Sector(s)

Unit sector	<i>Training Advisory Services</i>
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		

TLIA1207C Pick and process orders

Modification History

Unit Descriptor

This unit involves the skills and knowledge required to pick and process orders in accordance with workplace requirements including identifying workplace order picking processes, policies and procedures; picking and despatching orders, and recording stock levels.

Application of the Unit

Work must be carried out in accordance with relevant codes/regulations and workplace requirements for the picking and processing of orders.

Work is performed under some supervision generally within a team environment. It involves the application of workplace procedures to the picking and processing of orders in the warehousing, distribution and/or storage industries.

Licensing/Regulatory Information

Pre-Requisites

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify workplace order picking processes, policies and procedures	<p>1.1 Workplace procedures for order picking and related workplace documentation are interpreted</p> <p>1.2 Stock allocation and location systems are identified and located</p> <p>1.3 Appropriate manual handling equipment is selected in accordance with OH&S regulations and workplace procedures</p>
2 Pick and despatch an order	<p>2.1 Work requirements are planned with appropriate equipment and documentation assembled</p> <p>2.2 Zones of the warehouse which store required products are identified and located</p> <p>2.3 Pick path is established</p> <p>2.4 Where required, appropriate pallet(s) for orders are selected and stacked to minimise stock damage and maximise stability</p> <p>2.5 Products are selected and consolidated</p> <p>2.6 Products/pallets are located in despatch areas</p> <p>2.7 Products are assembled to meet workplace schedules</p> <p>2.8 Orders are consolidated, secured, arranged and placed in storage zones in accordance with the schedule</p>
3 Record stock levels	<p>3.1 Storage areas are checked and stocks are noted for replenishment in accordance with workplace procedures</p> <p>3.2 Workplace records are completed in accordance with workplace requirements</p>

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Regulations relevant to the picking and processing of orders, including relevant bond, quarantine or other legislative requirements

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the picking and processing of orders

Focus of operation of work systems, equipment, management and site operating systems for the picking and processing of orders

Problems that may occur when picking and processing an order and appropriate action that can be taken to resolve the problems

Documentation and record requirements when picking and processing an order

Equipment used during picking and processing operations and the precautions and procedures that should be followed in its use

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when picking and processing orders

Read and comprehend simple statements in English

Read and interpret instructions, procedures, signs and labels relevant to the picking and processing of orders

Complete documentation related to picking and processing orders

Identify relevant stock and goods coding and labelling, including ADG and IMDG markings

Work collaboratively with others when picking and processing orders

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions when picking and processing orders in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unplanned events when picking and processing orders

Apply precautions and required action to minimise, control or eliminate hazards that may exist when picking and processing orders

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use relevant equipment and communications technology when picking and processing orders

Select and use required personal protective equipment conforming to industry and OH&S standards

Estimate the size, shape and special requirements of goods/loads

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Work may be conducted:	by day or night in a range of work environments
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	limited or restricted spaces exposed conditions controlled or open environments
Problems that may occur when picking and processing an order include:	wrong stock is picked wrong carton for order incorrect location damaged stock no stock at location incorrect quantity failing to meet a special order requirement
Special order requirements may include:	pricing special packing specific size of carton special categories of stock
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials oil or water on floor a fire or explosion damaged packaging or pallets debris on floor faulty racking

	poorly stacked pallets
	faulty equipment
Consultative processes may involve:	workplace personnel
	supervisors and managers
	customers/clients
	contractors
	official representatives
Communication in the work area may include:	phone
	electronic data interchange (EDI)
	fax
	email
	internet
	RF communications
	barcode readers
	oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures
Personal protective equipment may include:	gloves
	safety headwear and footwear
	safety glasses
	two-way radios
	high visibility clothing
Information/documents may include:	goods identification numbers and codes
	manifests, picking slips, merchandise transfers, stock requisitions and bar codes
	manufacturers specifications for equipment/tools
	workplace procedures and policies
	supplier and/or client instructions
	material safety data sheets
	codes of practice including the National

Standards for Manual Handling and the Industry Safety Code

relevant legislation, regulations and related documentation

award, enterprise bargaining agreement, other industrial arrangements

standards and certification requirements

quality assurance procedures

emergency procedures

Applicable regulations and legislation may include:

relevant codes and regulations pertaining to the picking and processing of orders

Australian Dangerous Goods Code

relevant state/territory OH&S legislation

relevant state/territory environmental protection legislation

licence, patent or copyright arrangements

water and road use and licence arrangements

export/import/quarantine/bond requirements

workplace relations regulations

workers compensation regulations

Unit Sector(s)

Competency Field

A - Handling Cargo/Stock

TLIA1607C Use inventory systems to organise stock control

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to use inventory systems to organise stock control in accordance with workplace requirements including identifying inventory and stock control systems in use in the workplace, using re-order procedures to maintain stock levels, organising cyclical stock counts, and reporting discrepancies or variances.

Application of the Unit

Work must be carried out in compliance with the relevant regulations and workplace requirements concerning the use of inventory systems to organise stock control. Work is performed under some supervision generally within a team environment. It involves the application of product knowledge and an understanding of relevant workplace procedures and regulatory requirements when using inventory systems to organise stock control as part of work activities in the warehousing, distribution and/or storage industries.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify inventory and stock control systems in use in the workplace	1.1 Workplace inventory and stock control equipment, software and systems are identified
	1.2 Reasons for common database approach to inventory records and documentation in the warehouse are explained
	1.3 Procedures for identification and reporting of discrepancies or variances are identified
2 Use re-order procedures to maintain stock levels	2.1 Stock level maintenance checking is conducted
	2.2 Stock is re-ordered to meet stock level maintenance requirements in accordance with workplace policies and procedures
	2.3 Data is accurately entered and extracted from the inventory/records system using appropriate workplace procedures
3 Organise cyclical stock counts and report discrepancies or variances	3.1 Process for cyclical stock count is planned and work allocated to team members
	3.2 Clear directions on tasks to be performed are given
	3.3 Stocktake activities are conducted in accordance with workplace procedures
	3.4 Types and causes of records discrepancies are identified
	3.5 Procedures for noting and correcting minor discrepancies are used
	3.6 Major discrepancies are reported in accordance with workplace procedures
	3.7 Workplace documentation is completed
4 Produce reports on record keeping and inventory functions	4.1 Types of reports to be produced from inventory records systems are identified
	4.2 Reports are produced in accordance with workplace procedures and relevant regulatory

requirements

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Australian codes and regulations relevant to the organisation of stock control

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the use of inventory systems to organise stock control

Focus of operation of inventory systems, equipment, management and site operating systems for the control of stock

Principles of operation and functions of inventory systems

Applications of different types of inventory systems and stock management approaches

Workplace processes for records management and the production of inventory reports

Principles of operation and functions of inventory systems

Computer records and documentation requirements for stock control, including forms, checklists and inventory reports

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when using inventory systems to organise stock control

Read and comprehend simple statements in English

Read and interpret instructions, procedures and labels relevant to the use of inventory systems for the organisation of stock control

Complete documentation related to the use of inventory systems to organise stock control

Work collaboratively with others when using inventory systems to organise stock control

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems when using inventory systems to organise stock control in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unplanned events

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Select and use relevant communications, computing and office equipment when using inventory systems to organise stock control

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Work may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	limited or restricted spaces exposed conditions controlled or open environments
Goods may involve:	special handling, location, storage and/or packaging requirements, including temperature controlled goods and dangerous goods
Inventory systems may be:	automated manual paper-based computerised microfiche
Categories or groups of products/stock may include:	small parts perishable goods overseas export dangerous goods refrigerated products temperature controlled stock fragile goods
The characteristics of products/stock may include:	small parts toxicity flammability form weight

	size
	state
	perishability
	fragility
	security risk
Labelling systems may include:	batch code
	bar code
	identification numbering systems
	serial numbers
	symbols for safe handling
	ADG and HAZCHEM Codes
Hazards in the work area may include:	chemicals
	dangerous or hazardous substances
	movements of equipment, goods and materials
	oil or water on floor
	a fire or explosion
	damaged packaging or pallets
	debris on floor
	faulty racking
	poorly stacked pallets
	faulty equipment
Communication in the work area may include:	phone
	electronic data interchange (EDI)
	fax
	email
	internet
	RF systems
	oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures

Personal protective equipment may include:	<ul style="list-style-type: none">glovessafety headwear and footwearsafety glassestwo-way radioshigh visibility clothing
Consultative processes may involve:	<ul style="list-style-type: none">other employees and supervisorssuppliers, customers and clientsrelevant authorities and institutionsmanagement and union representativesindustrial relations and OH&S specialistsother maintenance, professional or technical staff
Information/documents may include:	<ul style="list-style-type: none">goods identification numbers and codesmanifests, picking slips, merchandise transfers, stock requisitions and bar codescodes of practice and regulations relevant to the identification, handling and stacking of goodsAustralian and international regulations and codes of practice for the handling, stacking and transport of dangerous goods and hazardous substancesoperations manuals, job specifications and induction documentationmanufacturers specifications for equipmentworkplace procedures and policiessupplier and/or client instructionsdangerous goods declarations and material safety data sheets (where applicable)award, enterprise bargaining agreement, other industrial arrangementsrelevant Australian standards and certification requirementsquality assurance proceduresemergency procedures
Applicable regulations and legislation may	<ul style="list-style-type: none">relevant codes and regulations for the

include:

packaging of goods

Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including:

Australian and international dangerous goods codes

Australian and international explosives codes

licence, patent or copyright arrangements

water and road use and licence arrangements

export/import/quarantine/bond requirements

relevant state/territory OH&S and environmental protection legislation

workplace relations regulations

workers compensation regulations

Unit Sector(s)

Not applicable.

Competency Field

A - Handling Cargo/Stock

TLIA2207C Participate in stocktakes

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to participate in stocktakes in accordance with workplace requirements including preparing for stocktakes, conducting stocktakes, counting stock, identifying stock discrepancies, and completing all required documentation.

Application of the Unit

Work must be carried out in compliance with the relevant regulations and workplace requirements concerning the conduct of a stocktake.

Work is performed under some supervision generally within a team environment. It involves the application of product knowledge and an understanding of relevant workplace procedures and regulatory requirements when participating in stocktakes as part of work activities in the warehousing, distribution and/or storage industries.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Prepare for stocktake	<p>1.1 Goods to be counted and appropriate inventory systems are identified</p> <p>1.2 Required resources including equipment and record keeping systems are identified</p> <p>1.3 Allocated tasks, zones and work requirements are identified</p> <p>1.4 Sequence work role is planned in a time effective manner</p>
2 Stocktake and count stock	<p>2.1 Stocktaking and cyclical counts are undertaken in accordance with enterprise policies and procedures</p> <p>2.2 Inventory data is interpreted</p> <p>2.3 Inventory data is confirmed to match stock</p> <p>2.4 Stock levels are accurately counted and documented</p>
3 Identify stock discrepancies	<p>3.1 Discrepancies in type, number and quality of stock are accurately recorded and documented</p> <p>3.2 Products stored in inappropriate storage locations are relocated and stock records adjusted</p>
4 Complete documentation	<p>4.1 Inventory data is reconciled to match warehouse stock in accordance with company procedures</p> <p>4.2 Workplace documentation is completed</p>

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Australian codes and regulations relevant to the conduct of stocktakes

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the conduct of stocktakes

Focus of operation of work systems, equipment, management and site operating systems for the conduct of stocktakes

Workplace processes for records management and the production of stocktake reports

Principles of operation and functions of stocktake systems

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when conducting stocktakes

Read and comprehend simple statements in English

Read and interpret instructions, procedures and labels relevant to the conduct of stocktakes

Complete documentation related to the conduct of stocktakes

Work collaboratively with others when conducting stocktakes

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when conducting stocktakes in accordance with regulatory requirements and workplace procedures

Apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and

environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use relevant communication, computing and office equipment when conducting stocktakes

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Work may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Goods may involve:	special handling, location, storage and/or packaging requirements, including temperature controlled goods and dangerous goods
Inventory systems may be:	automated manual paper based computerised microfiche
Categories or groups of products/stock may include:	small parts perishable goods overseas export dangerous goods refrigerated products temperature controlled stock fragile goods
The characteristics of products/stock may include:	small parts toxicity flammability form weight

	size
	state
	perishability
	fragility
	security risk
Labelling systems may include:	batch code
	bar code
	identification numbering systems
	serial numbers
	symbols for safe handling
	ADG and HAZCHEM Codes
Hazards in the work area may include:	chemicals
	dangerous or hazardous substances
	movements of equipment, goods and materials
	oil or water on floor
	a fire or explosion
	damaged packaging or pallets
	debris on floor
	faulty racking
	poorly stacked pallets
	faulty equipment
Communication in the work area may include:	phone
	electronic data interchange (EDI)
	fax
	email
	internet
	RF systems
	oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures

Personal protective equipment may include:	<ul style="list-style-type: none">glovessafety headwear and footwearsafety glassestwo-way radioshigh visibility clothing
Consultative processes may involve:	<ul style="list-style-type: none">other employees and supervisorssuppliers, customers and clientsrelevant authorities and institutionsmanagement and union representativesindustrial relations and OH&S specialistsother maintenance, professional or technical staff
Information/documents may include:	<ul style="list-style-type: none">goods identification numbers and codesmanifests, picking slips, merchandise transfers, stock requisitions and bar codescodes of practice and regulations relevant to the identification, handling and stacking of goodsAustralian and international regulations and codes of practice for the handling, stacking and transport of dangerous goods and hazardous substancesoperations manuals, job specifications and induction documentationmanufacturers specifications for equipmentworkplace procedures and policiessupplier and/or client instructionsdangerous goods declarations and material safety data sheets (where applicable)award, enterprise bargaining agreement, other industrial arrangementsrelevant Australian standards and certification requirementsquality assurance proceduresemergency procedures
Applicable regulations and legislation may	<ul style="list-style-type: none">relevant codes and regulations for the

include:

packaging of goods

Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including:

Australian and International Dangerous Goods Codes

Australian and International Explosives Codes

licence, patent or copyright arrangements

water and road use and licence arrangements

export/import/quarantine/bond requirements

relevant state/territory OH&S and environmental protection legislation

workplace relations regulations

workers compensation regulations

Unit Sector(s)

Not applicable.

Competency Field

A - Handling Cargo/Stock

TLID1007C Operate a forklift

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to operate a forklift, including checking forklift condition, driving the forklift to fulfil operational requirements, monitoring site conditions, and monitoring and maintaining forklift performance. Assessment of this unit will usually be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory OH&S authority.

Application of the Unit

Operation of a forklift must be carried out in compliance with the licence requirements and regulations of the relevant state/territory authority.

Operation of a forklift is performed under some supervision, generally within a team environment. It involves the application of routine equipment operation principles and procedures to maintain the safety and operation of a forklift in a variety of operational contexts.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Check forklift condition	<p>1.1 Condition of forklift is checked for compliance with OH&S and workplace requirements for warning devices, manufacturers specifications and the nature of the load shifting task</p> <p>1.2 Attachments are checked to ensure appropriate adjustment and operation</p> <p>1.3 Mirrors and seats are adjusted for safe operation by the driver</p> <p>1.4 Log books are checked and appropriate workplace documentation is completed in accordance with workplace requirements</p>
2 Drive the forklift	<p>2.1 Forklift is started, steered, manoeuvred, positioned and stopped in accordance with regulations and manufacturers instructions</p> <p>2.2 Engine power is managed to ensure efficiency and performance and to minimise engine and gear damage</p> <p>2.3 Operational hazards are identified and/or anticipated and avoided or controlled through defensive driving and appropriate hazard control techniques</p> <p>2.4 Forklift is driven in reverse, maintaining visibility and achieving accurate positioning</p> <p>2.5 The forklift is parked, shut down and secured in accordance with manufacturers specifications, regulations and workplace procedures</p>
3 Operate a forklift to handle loads	<p>3.1 The lifting task to be undertaken is appropriately planned and the correct lifting truck and attachments are selected</p> <p>3.2 The load is lifted, carried, lowered and set down in accordance with OH&S legislation, manufacturers specifications and company procedures</p>

- 4 **Monitor site conditions**
 - 4.1 When selecting the most efficient route, hazards and traffic flow are identified and appropriate adjustments are made
 - 4.2 Site conditions are assessed to enable safe operations and to ensure no injury to people or damage to property, equipment, loads or facilities occurs

- 5 **Monitor and maintain forklift performance**
 - 5.1 Performance and efficiency of vehicle operation is monitored during use
 - 5.2 Defective/irregular performance and malfunctions reported to relevant personnel
 - 5.3 Forklift records are maintained/updated in accordance with workplace procedures and legislative requirements

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant duty of care requirements pertaining to the operation of a forklift

Relevant OH&S and environmental procedures and regulations

Workplace operating procedures

Forklift controls, instruments and indicators and their use

Forklift handling procedures

Procedures to be followed in the event of an operational emergency

Engine power management and safe operating strategies

Efficient driving techniques

Operating hazards and related defensive driving and hazard control techniques

Pre-operational checks carried out on forklift and related action

Principles of stress management when driving a forklift

Site layout and obstacles

Required skills:

Communicate effectively with others when operating a forklift

Read and interpret instructions, procedures, information and signs relevant to the operation of a forklift

Interpret and follow operational instructions and prioritise work

Complete documentation related to the operation of a forklift

Operate electronic communication equipment to required protocol

Work collaboratively with others when operating a forklift

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected events when operating a forklift

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the operation of a forklift

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Apply fatigue management knowledge and techniques

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Identify points of balance and safe lifting positions on a range of loads when operating a forklift (including accessories)

Monitor performance of forklift and its equipment and take appropriate action where required

Ensure that a forklift and its equipment are maintained in terms of service schedule and standard operating procedures

Check and replenish fluids and carry out lubrication processes in the course of work activities

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Types of forklift may include:	counterbalance trucks reach trucks pallet trucks
Operations may be carried out in typical forklift operational situations, including:	operations conducted at day or night typical weather conditions on the open road on a private road or worksite while at a workplace
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Loads to be shifted may require:	special precautions
Loads to be shifted may be:	irregularly shaped packaged or unpackaged labelled or unlabelled palletted or unpalletted
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives

Forklift handling procedures may include:	<ul style="list-style-type: none">starting a forkliftsteering and manoeuvring a forkliftaccelerating and brakingpositioning and stopping a forkliftreversing a forkliftoperating forklift controls, instruments and indicatorsusing defensive driving techniquesmanaging engine performance
Pre-operational checks may include:	<ul style="list-style-type: none">visual check of forkliftchecking and topping up of fluid levelschecks of tyreschecks of operation of forklift lights and indicatorschecks of brakes
Hazards may include (examples only):	<ul style="list-style-type: none">wet and iced operating surfacesoil on operating surfacefaulty brakesworkplace obstacles and other operational equipment and vehiclesdamaged loads and palletsother personnel in work area
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	<ul style="list-style-type: none">company proceduresenterprise proceduresorganisational proceduresestablished procedures
Personal protection equipment may include:	<ul style="list-style-type: none">glovessafety headwear and footwearsafety glassestwo-way radioshigh visibility clothing
Information/documents may include:	<ul style="list-style-type: none">goods identification numbers and codes, including IMDG markings and HAZCHEM

signs

manifests, bar codes, picking slips,
merchandise transfers, stock requisitions,
goods and container identification

Australian Standard 2359 - Industrial Truck
Code

manufacturers specifications for forklift and
associated equipment

operations and service record book or log

workplace procedures and policies for the
operation of forklifts

supplier and/or client instructions

ADG Code and material safety data sheets

regulatory requirements concerning the use
of forklifts

award, enterprise bargaining agreement,
other industrial arrangements

standards and certification requirements

quality assurance procedures

emergency procedures

Applicable procedures and codes may
include:

relevant state/territory regulations pertaining
to the operation of forklifts

relevant codes and standards, including
Australian Standard 2359 - Industrial Truck
Code

relevant state/territory OH&S legislation

relevant state/territory fatigue management
regulations

relevant state/territory environmental
protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID107C Shift materials safely using manual handling methods

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to shift loads using manual handling methods, including assessing the risks associated with relocating the load, planning the relocation process and carrying out the relocation in accordance with the plan.

Application of the Unit

Work must be carried out in compliance with the relevant OH&S regulations concerning the manual lifting and movement of loads.

Work is performed under some supervision generally within a team environment.

Work involves the application of the basic principles for the safe lifting and movement of loads when shifting materials using manual handling methods as part of day-to-day work.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Assess risks arising from the relocation of the load	1.1 Products, goods or materials to be relocated are identified 1.2 Locations for storage are determined and potential routes to be followed are identified 1.3 Effect of load relocation on original load base is predicted 1.4 Points of balance are estimated 1.5 Required clearances are compared to available space and adjustments made 1.6 Effects of moving contents which may be loose, liquid, dangerous or hazardous are considered 1.7 Potential risks in route(s) which may be followed are considered 1.8 Risks to self are identified arising from the required lifting, load carrying, set down or movement of the goods 1.9 Manual handling procedures for lifting, lowering and carrying, pushing and pulling are identified
2 Plan load relocation	1.1 Team lifting processes are considered for application 1.1 Appropriate personal protective equipment is worn 2.1 Relocation of the load is planned consistent with the code of practice for manual handling 2.2 Process for relocating load is proposed including predicting and planning for potential difficulties 2.3 Proposed process is checked against code of practice and workplace procedures for compliance

3 Relocate load

- 3.1 Actions for lifting, lowering and carrying, pulling and pushing a load are in accordance with workplace procedures and OH&S requirements
- 3.2 Applications appropriate for team relocation of load are identified
- 3.3 Team lifting tasks are coordinated
- 3.4 Planned process and route are followed
- 3.5 Relocated materials are set down without damage to goods, personnel or equipment and checked for stability
- 3.6 Relocation is checked to see that it meets work requirements, with any variance(s) reported

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant OH&S procedures and guidelines concerning the manual lifting and movement of loads

Risks when manually lifting and handling materials and goods and related precautions to control the risk, including: the load on the spine during lifting; controlled actions on a movement during lifting; rotation and side movement of the spine during lifting; postures and positions during lifting; work layout; the type, weight and position of the load; frequency of shifting operations; distance over which load is to be shifted; and time allowed for the shifting of the load

Workplace procedures and policies for the handling of furniture and effects

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when manually lifting and handling materials and goods

Read and interpret instructions, procedures and information relevant to the manual lifting and handling of materials and goods

Interpret and follow operational instructions and prioritise work

Work collaboratively with others when manually lifting and handling materials and goods

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when manually lifting and handling materials and goods in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected situations that may occur when manually lifting and handling materials and goods

Apply precautions and required action to minimise, control or eliminate risks that may exist when manually lifting and handling materials and goods

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Apply fatigue management knowledge and techniques

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in loads and materials in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

The shifting operations may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Materials to be shifted may include:	goods equipment and tools cleaning materials components and parts of vehicles and equipment such as tyres, batteries, lifting gear, etc. materials used in the course of work such as drums of fuel, raw materials, packaging, etc.
Loads to be shifted may be:	irregularly shaped packaged or unpackaged labelled or unlabelled
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives
Communication in the work area may include:	phone electronic data interchange

	fax
	email
	internet
	radio
	oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures
Personal protective equipment may include:	gloves
	safety headwear and footwear
	safety glasses
	two-way radios
	high visibility clothing
Information/documents may include:	goods identification numbers and codes
	manifests, bar codes, goods and container identification
	manufacturers specifications for equipment/tools
	workplace procedures and policies
	supplier and/or client instructions
	material safety data sheets
	codes of practice including the National Standards for Manual Handling and the Industry Safety Code
	relevant legislation, regulations and related documentation
	award, enterprise bargaining agreement, other industrial arrangements
	standards and certification requirements
	quality assurance procedures
	emergency procedures
Applicable regulations and legislation may include:	relevant state/territory OH&S legislation
	relevant state/territory environmental

protection legislation
workplace relations regulations
workers compensation regulations
licence, patent or copyright arrangements
dangerous goods and air freight regulations
export/import/quarantine/bond requirements
marine orders

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID1107C Conduct specialised forklift operations

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to operate a forklift with specialised attachments or all-terrain equipment, including checking attachments and worksite for suitability, selecting the type of forklift and accessories for required load shifting tasks, and shifting load and completing work in accordance with operational requirements. Assessment of this unit will usually be undertaken within a licensing examination conducted by, or under the authority of, the relevant state/territory OH&S authority.

Application of the Unit

Specialised operation of a forklift must be carried out in compliance with the licence requirements and regulations of the relevant state/territory authority.

Specialised operation of a forklift is performed under some supervision, generally within a team environment. It involves the application of equipment operation principles and procedures to maintain the safety and specialised operation of a forklift in a wide variety of operational contexts.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Check attachments and worksite for suitability	1.1 Suitable work site is selected for operations 1.2 Work area is checked for overhead obstructions and proximity to service delivery lines 1.3 Barriers or warning signs are erected in areas subject to passing traffic 1.4 Attachments and platforms are securely fixed to carriage or tines 1.5 Personnel support platforms are inspected to ensure compliance with the relevant Australian Standard
2 Select type of forklift and accessories for the required workplace task	2.1 Special equipment, accessories or attachments are identified to match load characteristics and work requirements 2.2 Appropriate specialised equipment is selected 2.3 Existing attachments are removed and stored according to workplace procedures 2.4 Specialised equipment is fitted according to manufacturers instructions and workplace procedures 2.5 Designated staff are notified regarding specialist operations
3 Shift load and complete work	3.1 Equipment is operated within safe working limits and to maximise efficiency of operations 3.2 Load is lifted, carried and set down in accordance with workplace and manufacturers procedures and regulatory requirements 3.3 Documentation is completed reporting any damage or faults to goods or equipment 3.4 Specialist equipment and forklift are returned to appropriate storage/parking area

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant duty of care requirements pertaining to the specialised operation of a forklift

Relevant OH&S and environmental procedures and regulations

Workplace operating procedures

Forklift controls, instruments and indicators and their use

Types of forklift accessories and ancillary equipment, their purposes and procedures for their use

Handling procedures for forklifts involved in specialised operations

Procedures to be followed in the event of an operational emergency

Operating hazards and related defensive driving and hazard control techniques

Engine power management and safe operating strategies

Efficient driving techniques

Pre-operational checks carried out on forklift and accessories and related action

Site layout and obstacles

Principles of stress management when driving a forklift

Required skills:

Communicate effectively with others when conducting specialised forklift operations

Read and interpret instructions, procedures, information and signs relevant to specialised forklift operations

Interpret and follow operational instructions and prioritise work

Complete documentation related to specialised forklift operations

Operate electronic communication equipment to required protocol

Work collaboratively with others when conducting specialised forklift operations

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may arise when conducting specialised forklift operations in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected events that may occur when conducting specialised forklift operations

Apply precautions and required action to minimise, control or eliminate hazards that may exist during specialised forklift operations

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Apply fatigue management knowledge and techniques

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Identify points of balance and safe lifting positions on a range of loads when operating a forklift (including accessories)

Monitor performance of equipment

Service equipment in terms of maintenance schedule and standard operating procedures

Check and replenish fluids and carry out lubrication processes in the course of work activities

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Types of forklift may include:

counterbalance trucks
reach trucks
pallet trucks
container-handling heavy forklifts
vacuum
top frame

Specialised forklift operations may be carried out in typical forklift operational situations, including:

operations conducted at day or night
typical weather conditions
on the open road
on a private road or worksite
while at a workplace

Customers may be:

internal or external

Workplaces may comprise:

large, medium or small worksites

Specialised forklift may be used to assist in a range of workplace tasks, including:

stock/goods/container handling
loading and unloading vehicles
stacking stock and goods
lifting and moving equipment
transporting materials and goods in a workplace

Work may be conducted in:

restricted spaces
exposed conditions
controlled or open environments

Loads to be shifted may require:

special precautions

Specialised forklift operations may involve the use of a range of attachments and accessories, including:

spikes
drum carriers
bale carriers
tines

	personnel carriers
	high reaching
	pantograph
	jibs
	paper clamps
	hooks
	side lifters
Loads to be shifted may be:	irregularly shaped
	packaged or unpackaged
	labelled or unlabelled
	palletted or unpalletted
	containerised
Personnel in the work area may include:	workplace personnel
	site visitors
	contractors
	official representatives
Forklift operational procedures may include:	starting a forklift (including pre-start checks)
	steering and manoeuvring a forklift
	accelerating and braking
	positioning and stopping a forklift
	reversing a forklift
	operating forklift controls, instruments and indicators
	using defensive driving techniques
	managing engine performance
Pre-operational checks may include but are not limited to:	visual checking of forklift and its associated accessories and equipment
	checking and topping up of fluid levels
	checks of tyres
	checks of operation of forklift lights and indicators
	checks of brakes
Post-operational checks may include but are	parking in a safe place

not limited to:	shutting down forklift lowering all equipment visually checking for faults or damage
Hazards may include (examples only):	wet and iced operating surfaces oil on operating surface faulty brakes workplace obstacles and other operational equipment and vehicles damaged loads and pallets other personnel in work area
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures
Personal protective equipment may include:	gloves safety headwear and footwear safety glasses two-way radios high visibility clothing
Information/documents may include:	goods identification numbers and codes, including IMDG markings and HAZCHEM signs manifests, bar codes, picking slips, merchandise transfers, stock requisitions, goods and container identification Australian Standard 2359 - Industrial Truck Code manufacturers specifications for forklift and associated accessories and equipment operations and service record book or log workplace procedures and policies for the operation of forklifts supplier and/or client instructions material safety data sheets regulatory requirements concerning the use

	of forklifts
	award, enterprise bargaining agreement, other industrial arrangements
	standards and certification requirements
	quality assurance procedures
	emergency procedures
Applicable procedures and codes may include:	relevant state/territory regulations pertaining to the operation of forklifts
	relevant codes and standards, including Australian Standard 2359 - Industrial Truck Code
	relevant state/territory OH&S legislation
	relevant state/territory fatigue management regulations
	relevant state/territory environmental protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID1307C Move materials mechanically using automated equipment

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to move materials mechanically using automated equipment such as automatic guided vehicles, tow motors, high level order pickers, conveyor systems, and mechanised pallet movers. This includes selecting appropriate mechanical moving equipment (where relevant), moving materials/goods in accordance with operational requirements, checking condition of materials/goods and completing all required documentation.

Application of the Unit

Work must be carried out in compliance with the relevant OH&S regulations concerning the movement of materials mechanically using automated equipment.

Work is performed under limited or minimum supervision. It involves the application of the basic principles and routine procedures for the safe movement of materials mechanically using automated equipment.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Select load moving equipment	<p>1.1 The mechanised handling equipment, the route to be taken and procedures to be used are selected appropriate to the characteristics of the goods</p> <p>1.2 Dangerous goods and hazardous materials are identified and handled in accordance with codes of practice, OH&S requirements and workplace procedures</p>
2 Move goods	<p>2.1 Goods are moved using the selected materials handling equipment in accordance with occupational health and safety regulations, manufacturers instructions and company procedures</p> <p>2.2 Problems in the movement of goods and materials using the automated equipment are identified and are reported in accordance with workplace procedures</p>
3 Check goods and complete documentation	<p>3.1 Moved goods are inspected for possible damage during transit/movement and appropriate action is taken</p> <p>3.2 All required documentation is completed for the tracking of the moved goods in accordance with company requirements</p>

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Regulations relevant to the use of automated equipment to move materials mechanically

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the use of automated equipment to move materials mechanically

Focus of operation of work systems, equipment, management and site operating systems for the use of automated equipment to move materials mechanically

The purpose, characteristics, capabilities, requirements and limitations of the automated materials moving equipment

Problems that may occur during the use of automated equipment to move materials mechanically and appropriate action that can be taken to resolve the problems

Risks when using automated equipment to move materials and related precautions to control the risks

Documentation and record requirements

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when using automated equipment to move materials mechanically

Read and interpret instructions, procedures, information and signs relevant to the use of automated equipment to move materials mechanically

Interpret and follow operational instructions and prioritise work

Complete documentation related to the use of automated equipment to move materials mechanically

Operate electronic communication equipment to required protocol

Work collaboratively with others when using automated equipment to move materials

mechanically

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may arise when using automated equipment to move materials mechanically in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unplanned events

Apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Monitor performance of automated equipment and take appropriate action where required

Ensure servicing of automated equipment in terms of maintenance schedule and standard operating procedures

Check and replenish fluids (where applicable) and carry out lubrication processes in the course of work activities

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

The operations may be conducted:	in a range of work environments by day or night in a range of typical weather conditions
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Mechanised equipment may include a range of goods and materials handling equipment such as:	automatic guided vehicle tow motors high level order picker conveyor system mechanised pallet mover
Personal protective equipment may include:	gloves safety headwear and footwear safety glasses two-way radios high visibility clothing
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials moving and rotating equipment and vehicles
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives

Communication in the work area may include:

phone
electronic data interchange
fax
email
internet
radio
oral, aural or signed communications

Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:

company procedures
enterprise procedures
organisational procedures
established procedures

Information/documents may include:

goods identification numbers and codes
manifests, bar codes, goods and container identification
manufacturers instructions concerning the use and servicing of automated mechanical equipment
workplace procedures and policies
supplier and/or client instructions
material safety data sheets
codes of practice including the National Standards for Manual Handling and the Industry Safety Code
relevant legislation, regulations and related documentation
award, enterprise bargaining agreement, other industrial arrangements
standards and certification requirements
quality assurance procedures
emergency procedures

Applicable regulations and legislation may include:

relevant state/territory OH&S legislation
relevant state/territory environmental protection legislation
workplace relations regulations
workers compensation regulations

ADG Code and regulations

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID207C Shift a load using manually-operated equipment

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to shift loads using manually-operated mechanical equipment, including assessing the risks associated with relocating the load, planning the relocation process and carrying out the relocation with the aid of the equipment in accordance with the plan.

Application of the Unit

Work must be carried out in compliance with the relevant OH&S regulations concerning the shifting and movement of loads using manually-operated equipment.

Work is performed under some supervision generally within a team environment. It involves the application of the basic principles for the safe shifting of loads using manually-operated equipment.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Assess risks arising from the relocation of the load	<ul style="list-style-type: none">1.1 Products, goods or materials to be relocated are identified1.2 Location for storage is determined1.3 Routes to be followed are identified1.4 Points of balance are estimated1.5 Effect of moving contents which may be loose, liquid, dangerous or hazardous are considered1.6 Potential risks in route(s) which may be followed are considered1.7 Lifting equipment to minimise potential risks is identified1.8 Appropriate personal protective equipment is worn
2 Plan load relocation	<ul style="list-style-type: none">2.1 Load shifting equipment is selected in accordance with workplace procedures2.2 Safe procedures for using lifting equipment are identified, including the calculation of Safe Working Load (SWL) and/or Working Load Limit (WLL) for weight of goods to be moved2.3 Process for relocating load is proposed including predicting and planning for potential difficulties2.4 Proposed process is checked against relevant code of practice and workplace procedures for compliance2.5 Lifting equipment and accessories are checked for safe operation in accordance with manufacturers instructions and workplace procedures
3 Relocate load	<ul style="list-style-type: none">3.1 Any unsafe equipment is reported to appropriate personnel in accordance with workplace procedures3.2 Planned process and route are followed using

equipment within necessary range of limitations

- 3.3 Relocated materials are set down without damage to goods, personnel or equipment and checked for stability
- 3.4 Relocation is checked to see that it meets work requirements, and any variances are reported
- 3.5 Equipment is returned to storage area in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant OH&S procedures and guidelines concerning the use of manually-operated equipment to shift loads

Risks when using manually-operated equipment to shift loads and related precautions to control the risk

Workplace procedures and policies for the shifting of goods and materials using manually-operated equipment

Problems that may arise when using manually-operated equipment to shift loads and actions that should be taken to prevent or solve them

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when using manually-operated equipment to shift loads

Read and interpret instructions, procedures, information and signs relevant to the shifting of loads using manually-operated equipment

Interpret and follow operational instructions and prioritise work

Complete documentation related to work activities

Work collaboratively with others when using manually-operated equipment to shift loads

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when using manually-operated equipment to shift loads in accordance with regulatory requirements and workplace procedures

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the shifting of loads using manually-operated equipment

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

The shifting operations may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Materials to be shifted may include:	goods equipment and tools cleaning materials components and parts of vehicles and equipment such as tyres, batteries, lifting gear, etc. materials used in the course of work such as drums of fuel, raw materials, packaging, etc.
Loads to be shifted may be:	irregularly shaped packaged or unpackaged labelled or unlabelled palletted or unpalletted
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives
Communication in the work area may	phone

include:	electronic data interchange fax email internet radio oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures
Personal protective equipment may include:	gloves safety headwear and footwear safety glasses two-way radios high visibility clothing
Information/documents may include:	goods identification numbers and codes manifests, bar codes, goods and container identification manufacturers instructions concerning the use and servicing of manually-operated load shifting equipment workplace procedures and policies supplier and/or client instructions material safety data sheets codes of practice including the National Standards for Manual Handling and the Industry Safety Code relevant legislation, regulations and related documentation award, enterprise bargaining agreement, other industrial arrangements standards and certification requirements quality assurance procedures emergency procedures

Applicable regulations and legislation may include:

relevant state/territory OH&S legislation
relevant state/territory environmental protection legislation
workplace relations regulations
workers compensation regulations
licence, patent or copyright arrangements
dangerous goods and air freight regulations
export/import/quarantine/bond requirements
marine orders

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID2407C Use specialised liquid bulk transfer equipment (gravity/pressurised)

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to use specialised gravity and pressurised liquid bulk transfer equipment including planning the work; transferring the bulk according to regulatory and operational requirements; monitoring and operating controls; and completing all operations, as required.

Application of the Unit

Work must be carried out in compliance with the ADG Code and relevant state/territory regulations concerning the use of specialised gravity and pressurised equipment for the transfer of liquid bulk product.

Work is performed under general supervision. It involves the application of basic principles, routine procedures and regulatory requirements to the use of specialised gravity and pressurised bulk transfer equipment to load and unload liquid bulk product.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Plan work	<ul style="list-style-type: none">1.1 Liquid transfer method is identified for loading and unloading as gravity or pressure1.2 Dangerous or hazardous (including regulated waste) or other materials requiring specialised handling are identified and relevant procedures are taken into account when planning the work1.3 Precautions are undertaken to eliminate all ignition sources1.4 Traffic flow, vehicle positioning and work area conditions are assessed to ensure safe operation and no injury to people, or damage to equipment, loads or facilities1.5 Characteristics of the liquid, transfer and holding method are taken into account when evaluating procedural requirements, special precautions for method, equipment and, where applicable, appropriate attachments to transfer the load1.6 Potential occurrences in the work area that may affect the safety and efficiency of operations are reported to the appropriate personnel1.7 Liquid transfer is planned, taking into account the requirements of the load, transfer method, storage facility and transport mode, load weight, volume and viscosity and the capacity of the equipment1.8 Load is checked prior to and at the completion of transfer to ensure ullage and/or maximum permitted capacity complies with ADG Code1.9 Adjustments are made to process to accommodate special requirements such as temperature control, combustion, etc.
	<ul style="list-style-type: none">1.1 Required personal protective equipment, signage, barriers and special precautions are identified in the plan and utilised
	<ul style="list-style-type: none">1.1 Procedures to deal with spills, leakages and

- 1 ruptures are identified
- 2 **Transfer material**
 - 2.1 Equipment is prepared and any appropriate attachments fitted
 - 2.2 Equipment controls are checked for correct operational status before commencing transfer
 - 2.3 Instruments and gauges are monitored during operations to ensure that operation is within manufacturers specifications and workplace schedule and safety requirements
 - 2.4 Speed of operation is managed for safety and efficiency of materials movement and equipment operations
 - 2.5 Faults or damage to equipment are immediately reported to the appropriate personnel
- 3 **Monitor and operate controls**
 - 3.1 Equipment controls are monitored and operated in accordance with manufacturers operating instructions
 - 3.2 Control systems are monitored in accordance with statutory authority regulations, manufacturers guidelines and site operating procedures
 - 3.3 Materials are moved ensuring no injury to personnel or damage to equipment or goods
 - 3.4 Faults are identified and reported in accordance with workplace procedures
- 4 **Complete operations**
 - 4.1 Equipment is shut down within manufacturers guidelines without injury to personnel or damage to equipment, loads or facilities in accordance with workplace procedures
 - 4.2 Clean up methods for transfer equipment are completed following workplace procedures
 - 4.3 Equipment is secured in accordance with securing procedures for the appropriate equipment
 - 4.4 Workplace documentation is completed and filed following workplace procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Australian Dangerous Goods Code and relevant state/territory mass and loading regulations as they apply to vehicles transporting liquid bulk product

OH&S procedures and guidelines concerning the use of specialised liquid bulk transfer equipment

Risks when transferring liquid bulk product and related precautions to control the risk

Workplace procedures and policies for the efficient use of specialised gravity and pressurised equipment to transfer liquid bulk product

Problems, faults or malfunctions that may occur when transferring liquid bulk product using specialised equipment and action that should be taken to prevent or resolve them

Hazards involved in transferring liquid bulk product using specialised equipment when transferring liquid bulk product and ways and means of controlling the risks involved

Housekeeping standards procedures required in the workplace

Methods of securing a vehicle following transfer of liquid bulk product

Relevant permit and health and safety requirements

Required skills:

Communicate effectively with others when transferring liquid bulk product using specialised equipment

Read and interpret instructions, procedures, information and signs relevant to the transfer of liquid bulk product using specialised equipment

Identify goods coding, IMDG markings and, where applicable, emergency information panels

Interpret and follow operational instructions and prioritise work

Complete documentation related to the transfer of liquid bulk product using specialised equipment

Operate electronic communication equipment to required protocol

Estimate the mass, volume and special requirements of liquid bulk product

Work collaboratively with others when transferring liquid bulk product using specialised equipment

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when transferring liquid bulk product using specialised equipment in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected events that may arise when transferring liquid bulk product using specialised equipment

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the transfer of liquid bulk product using specialised equipment

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in transfer equipment in accordance with standard operating procedures

Identify and correctly use equipment required to transfer liquid bulk product

Monitor performance of transfer equipment

Service transfer equipment in terms of maintenance schedule and standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Operations may be conducted: in a range of work environments and weather conditions

by day or night

Customers may be: internal or external

Workplaces may comprise: large, medium or small worksites

Work may be conducted in: restricted spaces

exposed conditions

controlled or open environments

Liquid bulk product to be transferred may require: special precautions

Hazards in the work area may include exposure to: hazardous or dangerous materials

contamination of, or from, materials being handled

noise, light, energy sources

stationary and moving machinery, parts or components

service lines

spills, leakages, ruptures

dust/vapours

Hazard management is: consistent with the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment

Personal protective equipment may include: gloves

safety headwear and footwear

safety glasses

mask or respirator

high visibility clothing

Exposure during work operations may be to:	corrosive chemicals solvents and adhesives toxic, explosive and other harmful substances movement of equipment, goods, vehicles
Regulatory controls and enterprise procedures may govern requirements for:	transport storage volume mass required controls
Ignition sources include:	naked flames and static sources
Requirements for work may include:	site restrictions and procedures use of safety and personal protective equipment communications equipment specialised lifting and/or handling equipment incident breakdown procedures additional gear and equipment noise restrictions hours of operation authorities and permits
Consultative processes may involve:	other employees and supervisors suppliers, potential customers and existing clients management and union representatives industrial relations, OH&S specialists, and other maintenance, professional or technical staff
Communication in the work area may include:	phone electronic data interchange fax email internet

	radio
	oral, aural or signed communications
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures site procedures
Information/documents may include:	Safe Working Load (SWL) and Working Load Limit (WLL) manifests, bar codes, goods and product identification manufacturers specifications for equipment/tools workplace procedures and policies for the transfer of liquid bulk product goods identification numbers and codes, including ADG and IMDG markings and HAZCHEM signs supplier and/or client instructions codes of practice including the Australian Dangerous Goods Code, relevant Australian Standards and the Industry Safety Code award, enterprise bargaining agreement, other industrial arrangements relevant standards and certification requirements quality assurance procedures emergency procedures material safety data sheets
Applicable regulations and legislation may include:	state/territory mass and loading regulations Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including: Australian and International Dangerous Goods Codes Australian Marine Orders and the

International Maritime Dangerous Goods
Code

IATA Dangerous Goods by Air regulations

Australian and International Explosives
Codes

Australian and state/territory regulations
related to the transfer of liquid bulk product
relevant Australian Standards, including AS
2809.1, AS 2809.2, AS 2931, AS 2430

relevant state/territory environmental
protection legislation

relevant state/territory OH&S legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID307E Handle dangerous goods/hazardous substances

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to handle dangerous goods and hazardous substances, including identifying requirements for working with dangerous goods and/or hazardous substances; confirming site incident procedures; and selecting handling techniques. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

This unit covers anyone working in the transport, warehousing, distribution and storage industries who may handle dangerous goods and/or hazardous substances.

Work must be carried out in compliance with the relevant Occupational Health&Safety (OH&S) regulations concerning the safe handling of dangerous goods and hazardous substances.

Work is performed under general supervision. It involves the application of the codes of practice and established procedures for the safe handling of dangerous goods and hazardous substances.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify requirements for working with dangerous goods and/or hazardous substances	<p>1.1 Dangerous goods and/or hazardous substances are identified from information including class labels, manifests and other documentation</p> <p>1.2 Storage requirements for hazardous substances and/or dangerous goods are identified and applied</p> <p>1.3 Legislative requirements for hazardous substances and/or dangerous goods are known and used to plan work activities</p> <p>1.4 Handling procedures for different classes and characteristics of goods are observed</p> <p>1.5 Confirmation is sought from relevant personnel where dangerous goods or hazardous materials do not appear to be appropriately marked</p>
2 Confirm site incident procedures	<p>2.1 Incident reporting processes are identified</p> <p>2.2 Emergency equipment is located and checked according to workplace procedures and statutory regulations</p> <p>2.3 Emergency procedures are identified and confirmed</p>
3 Select handling techniques	<p>3.1 Load handling and shifting procedures are selected in accordance with identified requirements for particular goods</p> <p>3.2 Handling equipment is checked for conformity with workplace requirements and manufacturers guidelines</p> <p>3.3 Where relevant, suitable signage is checked for compliance with workplace procedures</p>

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

All relevant regulations and codes concerning the handling of dangerous goods and hazardous substances

Application of relevant aspects of current Australian Dangerous Goods Code and relevant Australian Standards

Permit and licence requirements

Workplace procedures for handling and storing dangerous goods/hazardous substances

Problems that may arise during the handling of dangerous goods and hazardous substances and actions that should be taken to prevent or solve them

Risks when handling dangerous goods and hazardous substances and related precautions to control the risk

Equipment applications, capacities, configurations, safety hazards and control mechanisms

Housekeeping standards procedures required in the workplace

Required skills:

Communicate effectively with others when handling dangerous goods and hazardous substances

Read and interpret instructions, procedures, regulations, information and signs relevant to the handling of dangerous goods and hazardous substances

Identify containers and goods coding, markings and, where applicable, emergency information panels for the mode of transport storage selected

Interpret and follow operational instructions and prioritise work

Complete documentation related to work activities

Operate electronic communication equipment to required protocol

Work collaboratively with others when handling dangerous goods and hazardous substances

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when handling dangerous goods and hazardous substances in accordance with regulatory requirements and workplace procedures

Plan own work including predicting consequences and identifying improvements

Implement contingency plans for unanticipated situations that may arise when handling dangerous goods and hazardous substances

Recognise hazards and apply precautions and required action to minimise, control or eliminate hazards that may exist during the handling of dangerous goods and hazardous substances

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of :

identifying dangerous goods/hazardous substances (from labels, International Maritime Dangerous Goods (IMDG) markings, HAZCHEM signs and other relevant identification criteria)

identifying and selecting the safety requirements for handling dangerous goods/hazardous substances

maintaining workplace records and documentation

determining (any) required permits

identifying job and site hazards and planning work to minimise risks

selecting appropriate equipment and work systems including personal protection equipment

estimating weight and dimensions of load and any special requirements

identifying and assessing handling and storage precautions and requirements for dangerous goods/hazardous substances

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments,

access is required to:

relevant and appropriate materials and/or equipment, and/or

applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

through appropriately simulated activities at the registered training organisation, and/or

in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

The dangerous goods may be handled in a range of work environments by day or night and may be:	<ul style="list-style-type: none"> for short-term storage for long-term storage in transit
Customers may be:	<ul style="list-style-type: none"> internal or external
Workplace environment may include:	<ul style="list-style-type: none"> movement of equipment movement of goods materials and vehicular traffic
Requirements for work may include:	<ul style="list-style-type: none"> site restrictions and procedures use of safety and personal protective equipment communications equipment specialised lifting and/or handling equipment incident breakdown procedures authorities and permits hours of operations noise restrictions additional gear and equipment segmentation procedures emergency procedures, including response to spillage/leaks, evacuation and firefighting
Hazards may include:	<ul style="list-style-type: none"> hazardous or dangerous materials contamination of, or from, materials being handled noise, light, energy sources stationary and moving machinery, parts or components service lines spills, leakages, ruptures fire or ignition

	dust/vapours
Hazard management is:	consistent with the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment
Consultative processes may involve:	other employees and supervisors suppliers, potential customers and existing clients representatives of regulatory authorities with jurisdiction over OH&S, dangerous goods and hazardous substances management and union representatives industrial relations and OH&S specialists other maintenance, professional or technical staff
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives
Identification of goods may be from:	material safety data sheets packaging labels manifests stock lists HAZCHEM interpretative advice
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures
Personal protective equipment may include:	gloves safety headwear and footwear safety glasses mask and respirator protective clothing

	breathing apparatus
Information/documents may include:	goods identification numbers and codes manifests, stock lists, packaging labels, bar codes, stock lists goods and container identification workplace procedures and policies concerning the handling of dangerous goods and hazardous substances supplier and/or client instructions material safety data sheets (MSDS) current Australian Dangerous Goods Code HAZCHEM interpretative advice relevant legislation, codes, regulations and related documentation concerning the handling of dangerous goods and hazardous substances award, enterprise bargaining agreement, other industrial arrangements standards and certification requirements quality assurance procedures emergency procedures pertaining to dangerous goods and hazardous substances
Applicable regulations and legislation may include:	relevant Australian and state/territory regulations relating to the handling of dangerous goods and hazardous substances current Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including: Australian and International Dangerous Goods Codes Australian Marine Orders and the International Maritime Dangerous Goods Code International Air Transport Association (IATA) Dangerous Goods by Air regulations Australian and International Explosives Codes

all relevant Australian Standards
relevant state/territory OH&S legislation
workplace relations regulations
equal employment opportunity and
affirmative action legislation
equal opportunity legislation
relevant state/territory environmental
protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID3107C Rig load

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to prepare and rig all types of loads in preparation for lifting by a crane, including preparing for the transfer of a load, assessing lifting requirements, securing a load, and detaching a load.

Application of the Unit

Work must be carried out in compliance with the licence/permit requirements and regulations of the relevant state/territory authorities pertaining to the rigging of loads during mobile crane operations.

Work is performed with general supervision, with limited accountability and responsibility for self and others in achieving the prescribed outcomes. It involves the application of routine principles and procedures to the rigging of loads during mobile crane operations in a variety of operational contexts.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Prepare for transfer of load	<p>1.1 Working area is prepared and maintained in accordance with national standards and safety codes and workplace operating procedures</p> <p>1.2 Unsafe work practices and/or faulty equipment are reported in accordance with workplace procedures</p> <p>1.3 Correct personal protective equipment is identified and worn</p>
2 Assess lifting requirements	<p>2.1 Work operations plan is examined and requirements for the lift identified including job method and sequence, control measures and safety procedures</p> <p>2.2 Coordination requirements with other site personnel are confirmed</p> <p>2.3 The mass, dimensions and centre of gravity of the load are determined</p> <p>2.4 Appropriate lifting gear/equipment/packing, including slings, ropes, shackles, eye bolts, spreaders etc. is selected (from safety charts and SWL/WLL tags), assembled and checked for serviceability</p> <p>2.5 Damaged or worn items are tagged, rejected and reported to appropriate personnel for follow-up action</p>
3 Secure load	<p>3.1 Lifting/anchorage points are correctly identified</p> <p>3.2 Lifting gear/equipment/packing is connected to the load, and load is secured to lifting device in accordance with workplace and manufacturers specifications, guidelines and regulatory requirements</p> <p>3.3 Load is lifted and suspended off the lifting plane and checked to ensure it is appropriately rigged and secured</p>

- 3.4 Corrective action is undertaken where preliminary lift assessment reveals unacceptable operational situation
 - 3.5 Tag lines are fixed to load in accordance with work operation plan and/or, in consultation with other personnel, where required due to wind conditions and site hazards/obstacles
- 4 Detach load**
- 4.1 Slinging attachments are released from load ensuring no injury to personnel or damage to workplace operating procedures
 - 4.2 Damage to load/site is identified and reported in accordance with workplace procedures
 - 4.3 Lifting gear/equipment/packing is maintained and stored in accordance with workplace and manufacturers specifications, guidelines and regulatory requirements

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant road rules, regulations, permit and licence requirements pertaining to rigging of loads during mobile crane operations

Relevant OH&S and environmental procedures and regulations

Mobile crane applications, capacities, configurations, safety hazards and control mechanisms

Operational procedures for crane crews

Requirements for Safe Working Load (SWL) or Working Load Limit (WLL)

Prioritising and multi-tasking work

Workplace procedures concerning the rigging of loads during mobile crane operations

Problems that may arise when rigging a load during mobile crane operations and actions that should be taken to prevent or solve them

Focus of operation of work systems and equipment

Required skills:

Communicate effectively with others when rigging a load during mobile crane operations

Read and interpret instructions, procedures, information and signs relevant to the rigging of a load during mobile crane operations

Interpret and follow operational instructions and prioritise work

Operate electronic communication equipment to required protocol

Work collaboratively with others when rigging a load during mobile crane operations

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when rigging a load during mobile crane operations in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected situations that may arise when rigging a load during mobile crane operations

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the rigging of a load as part of mobile crane operations

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Apply fatigue management knowledge and techniques

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Identify and correctly use equipment, processes and procedures

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Monitor condition and performance of gear and equipment and take appropriate action where required

Service gear and equipment in terms of maintenance schedule and standard operating procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Operations may be conducted:	day or night in a variety of weather conditions
Environment may include movement of:	equipment goods materials vehicular traffic
Customers may be:	internal or external
Mobile crane may be involved in work in a range of industry sectors including:	construction and demolition manufacturing waterfront mining primary industry utilities (electricity, gas, water) arboricultural swimming pool quarrying
Hazards may include:	power lines noise, light, energy sources overhead service lines surrounding buildings, structures, facilities underground services obstructions uneven or unstable ground and recently filled trenches stationary and moving machinery and equipment hazardous or dangerous materials traffic hazards and congestion

Hazard management is:	consistent with the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment
Consultative processes may involve:	other employees and supervisors management union representatives clients industrial relations and OH&S specialists other professional or technical staff
Loads to be shifted are:	rigged and secured in accordance with workplace and regulatory standards/codes of practice
Requirements for access and/or lift may include:	site restrictions and procedures authorities and permits hours of operation induction slings, chains, nets, brackets and other specialised lifting equipment noise restrictions personal protective equipment support trucks additional gear and equipment communications equipment
Personal protective equipment may include:	gloves safety headwear and footwear sunscreen, sunglasses and safety glasses two-way radios high visibility clothing
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures

Documentation/records may include:

site procedures
operations manuals including load charts and crane and rigging manuals
Safe Working Load (SWL) and Working Load Limit (WLL)
lifting gear safety charts
induction documentation
competency standards and training materials
job specifications and procedures
manufacturers specifications
workplace operating procedures and policies
supplier and/or client instructions
communications technology equipment, oral, aural or signed communications
material safety data sheets
conditions of service, legislation and industrial agreements including:
workplace agreements and awards
occupational health and safety procedures
standards and certification requirements
quality assurance procedures
emergency procedures

Applicable procedures and codes may include:

relevant state/territory regulations and licence/permit requirements pertaining to mobile cranes
relevant state/territory road rules
relevant state/territory OH&S legislation
relevant state/territory fatigue management regulations
relevant state/territory environmental protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID3507C Operate a boom type elevating work platform

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to operate a boom type elevating work platform, including inspecting and testing the elevating work platform, assessing job requirements and work, planning work and setting up for lift, carrying out the elevation, implementing planned hazard control and strategies, and packing up the work platform after operations.

Application of the Unit

Work must be carried out in compliance with the licence/permit requirements and regulations of the relevant state/territory authorities pertaining to boom type elevating work platform operations.

Work is performed with limited or minimum supervision, and with limited accountability and responsibility for self and others in achieving the prescribed outcomes. It involves the application of routine principles and procedures to the operation of a boom type elevating work platform in a variety of operational contexts.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Inspect and test elevating work platform	<p>1.1 Work platform is visually inspected prior to operation for any evidence of damage, structural weakness or interference according to pre-operational safety check procedures</p> <p>1.2 Routine pre-operational equipment checks are carried out in accordance with available checklists</p> <p>1.3 Work platform log book is checked, service requirements are noted and maintenance personnel advised of any requirements</p> <p>1.4 Elevating work platform is started in accordance with manufacturers guidelines and start-up procedures for operations and any abnormal noise or movement reported to an authorised person for corrective action</p> <p>1.5 Start-up checks are conducted according to manufacturers specifications and company procedures to ensure work platform and equipment are operating correctly</p> <p>1.6 Faults are corrected or are reported to an authorised person for corrective action according to company procedures</p> <p>1.7 The operating and emergency controls are checked for correct operation in accordance with manufacturers specifications including use of the emergency decent device</p> <p>1.8 Boom is lowered under simulated emergency conditions to check for operational effectiveness</p> <p>1.9 Gear and accessories are checked and damaged or worn gear is segregated and reported to an authorised person for testing/repair/destruction</p> <p>1.1 Results of inspections are recorded and reported</p> <p>0 according to company procedures</p>

- 2 **Assess job requirements and work**
 - 2.1 Briefing, hand-over details, authorisations and clearances are received, interpreted and clarified in accordance with company and site procedures and legislative requirements
 - 2.2 Work area is inspected and potential hazards are identified and appropriate elimination or control measures selected
 - 2.3 Weight of load including personnel and equipment is correctly estimated to ensure job is within limits of work platform capacity
- 3 **Plan work and set up for lift**
 - 3.1 A work plan is developed and agreed with relevant workplace personnel to include hazard prevention/control measures and safety and emergency procedures in line with applicable Australian standards
 - 3.2 A suitable firm and level standing is chosen and prepared for the location of the elevating work platform
 - 3.3 Outriggers and stabilisers are correctly deployed and positioned in accordance with manufacturers instructions and appropriate Australian standards
 - 3.4 Appropriate plates or packing are correctly used under the footplates as required to adequately distribute the loading
 - 3.5 Ground is checked before and after packing is installed to ensure it is firm enough to bear the load
 - 3.6 The job plan is developed to include hazard prevention/control measures and safety procedures in line with applicable Australian standards and to equipment manufacturers specifications
 - 3.7 Work platform load chart is located and information on permissible loads, radii and heights taken into account in planning the job
 - 3.8 The job plan takes into account job requirements and workplace rules and procedures
 - 3.9 Job plan is discussed and confirmed with relevant personnel

- 3.1 Work gear and tools are properly stowed in the elevating work platform in accordance with Australian standards, company procedures and guides
- 4 **Carry out elevation**
- 4.1 Configuration and operation of elevating work platform are checked as necessary to ensure safe lift
- 4.2 Operation of work platform is carried out in accordance with the job plan, the appropriate Australian standard and manufacturers specifications
- 5 **Planned hazard control and strategies are implemented**
- 5.1 Load is constantly monitored to ensure safety of personnel, load and structural stability
- 5.2 Unplanned situations are responded to in line with company procedures in a manner that minimises risk to personnel and equipment
- 5.3 Required signals are correctly given, interpreted and followed in accordance with appropriate Australian standards
- 6 **Pack up work platform**
- 6.1 The elevating work platform is shut down using the correct sequence of procedures in accordance with manufacturers instructions
- 6.2 Routine post-operational equipment checks are carried out in accordance with manufacturers instructions and available checklists and defects recorded and reported in line with company procedures
- 6.3 The elevating work platform is dismantled in accordance with the job plan, manufacturers instructions and relevant statutory regulations
- 6.4 The outriggers and stabilisers are secured and stowed in accordance with manufacturers instructions
- 6.5 The elevating work platform is correctly stowed and secured in accordance with manufacturers instructions and company procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant road rules, regulations, permit and licence requirements pertaining to boom type elevating work platform operation

Relevant OH&S and environmental procedures and regulations

Boom type elevating work platform applications, capacities, configurations, safety hazards and control mechanisms

Workplace procedures concerning the operation of a boom type elevating work platform at a worksite

Problems that may arise when operating a boom type elevating work platform and actions that should be taken to prevent or solve them

Risks and hazards involved in the operation of a boom type elevating work platform and the associated action that can be taken to eliminate or minimise the risk/hazards concerned

Focus of operation of work systems and equipment

Required skills:

Communicate effectively with others when operating a boom type elevating work platform

Read and interpret instructions, procedures, regulations, codes of practice and manuals relevant to the operation of a boom type elevating work platform

Interpret and follow operational instructions

Complete documentation related to the operation of a boom type elevating work platform

Operate electronic communication equipment to required protocol

Work collaboratively with others when operating a boom type elevating work platform

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when operating a boom type elevating work platform in accordance with regulatory requirements and workplace procedures

Plan own work including predicting consequences and identifying improvements

Prioritise and multi-task work

Implement contingency plans for unanticipated situations that may arise when operating a boom type elevating work platform

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the operation of a boom type elevating work platform

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Apply fatigue management knowledge and techniques

Identify and correctly use equipment, processes and procedures

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Monitor performance of equipment

Service equipment in terms of maintenance schedule and standard operating procedures

Check and replenish fluids and carry out lubrication processes in the course of work activities

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Operations may be conducted:	by day or night in a variety of weather conditions
Environment may include movement of:	equipment goods materials vehicular traffic
Customers may be:	internal or external
Boom type elevating work platform may be involved in work in a range of industry sectors including:	construction and demolition manufacturing waterfront mining primary industry utilities (electricity, gas, water) arboricultural swimming pool quarrying
Hazards may include:	power lines noise, light, energy sources overhead service lines surrounding buildings, structures, facilities underground services obstructions uneven or unstable ground and recently filled trenches stationary and moving machinery and equipment hazardous or dangerous materials traffic hazards and congestion

Hazard management is consistent with:	the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment
Consultative processes may involve:	other employees and supervisors management union representatives clients industrial relations and OH&S specialists other professional or technical staff
Requirements for access and/or lift may include:	site restrictions and procedures authorities and permits hours of operation induction slings, chains, nets, brackets and other specialised lifting equipment noise restrictions personal protective equipment support trucks additional gear and equipment communications equipment
Personal protective equipment may include:	gloves safety headwear and footwear sunscreen, sunglasses and safety glasses two-way radios high visibility clothing
Elevating platforms may include:	mechanically operated equipment hydraulically operated equipment electrically operated equipment
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures

Documentation/records may include:

established procedures
site procedures
operations manuals
Safe Working Load (SWL) and Working Load Limit (WLL)
site plans
induction documentation
competency standards and training materials
job specifications and procedures
manufacturers specifications
workplace operating procedures and policies
supplier and/or client instructions
communications technology equipment, oral, aural or signed communications
personal and work area work procedures and practices
conditions of service, legislation and industrial agreements including:
workplace agreements and awards
occupational health and safety procedures
standards and certification requirements
quality assurance procedures
emergency procedures

Applicable procedures and codes may include:

relevant state/territory regulations and licence/permit requirements pertaining to the operation of boom type elevating work platforms
relevant state/territory road rules
relevant state/territory OH&S legislation
relevant state/territory fatigue management regulations
relevant state/territory environmental protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID407C Load and unload goods/cargo

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to load and unload goods and cargo, including loading and unloading goods, securing and protecting the load and completing all required documentation.

Application of the Unit

Work must be carried out in compliance with the relevant regulations/permit requirements including those of the relevant state/territory roads and traffic authority concerning the loading of goods/cargo.

Work is performed under some supervision generally within a team environment. It involves the application of the basic principles, routine procedures and regulatory/permit requirements to the loading and unloading of goods/cargo.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Load and unload goods/cargo	<p>1.1 Load characteristics are identified and taken into account when determining appropriate loading and unloading procedures</p> <p>1.2 Dangerous or hazardous goods are identified and handled in accordance with the Australian Dangerous Goods (ADG) Code and other relevant regulations/permit requirements</p> <p>1.3 Load is packed/unpacked to make safe and effective use of available spaces</p> <p>1.4 Goods/cargo are loaded in accordance with relevant mass and loading regulations and workplace procedures</p> <p>1.5 Lifting aids and appliances are selected and used to aid loading procedures in compliance with workplace procedures and safety legislation</p> <p>1.6 Unloading activities are conducted in a safe and efficient manner taking into account suitable locations, stowage, safe use of equipment and the balance of the remaining load</p> <p>1.7 Goods requiring special handling and/or documentation are identified and appropriate procedures followed</p> <p>1.8 Relocated material is restacked appropriate for the transport method, safe height, weight loading, size and crushability of the goods</p>
2 Secure and protect load	<p>2.1 The distribution of the load is checked to ensure that it is even, legal and within safe working capacity</p> <p>2.2 Load is checked to ensure that dangerous goods and hazardous substances are appropriately segregated in accordance with the ADG Code</p> <p>2.3 Load is secured using the correct load restraint and protection equipment for different loads, carrying</p>

and storage conditions

2.4 The load is protected in accordance with legal and workplace safety requirements

3 Complete documentation

3.1 The load is inspected and checked for security to travel in accordance with relevant regulations/permit requirements and the ADG Code where applicable

3.2 All required documentation for the goods is completed in accordance with workplace requirements including the ADG Code where applicable

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant Australian standards and regulations including state/territory mass and loading regulations

National Load Restraint Guide

Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances

OH&S procedures and guidelines concerning the lifting and movement of loads

Risks when loading and unloading goods/cargo and related precautions to control the risk

Security awareness requirements when loading and unloading vehicles and in particular the recognition, isolation and reporting of suspicious cargo and goods

Workplace procedures and policies for the loading and unloading of goods/cargo

Housekeeping standards procedures required in the workplace

Methods of securing a load

Site layout and obstacles

Problems that may arise when loading and unloading goods and cargo and actions that should be taken to prevent or solve them

Required skills:

Communicate effectively with others when loading and unloading goods and cargo

Read and interpret instructions, procedures, information, signs and labels relevant to the loading and unloading of goods and cargo

Identify containers and goods coding, ADG and IMDG markings and, where applicable, emergency information panels and take appropriate action

Interpret and follow operational instructions and prioritise work

Complete documentation related to the loading and unloading of goods and cargo

Operate electronic communication equipment to required protocol

Estimate the size, shape and special requirements of loads and take appropriate action

Work collaboratively with others when loading and unloading goods and cargo

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when loading and unloading goods and cargo in accordance with regulatory requirements and workplace procedures

Implement contingency plans for unexpected situations that may occur when loading and unloading goods and cargo

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the loading and unloading of goods and cargo

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in cargo and equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Operations may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	restricted spaces exposed conditions controlled or open environments
Goods/cargo to be loaded or unloaded may:	require special precautions
Loads to be shifted may be:	irregularly shaped packaged or unpackaged labelled or unlabelled palletted or unpalletted
Hazards in the work area may include exposure to:	chemicals dangerous or hazardous substances movements of equipment, goods and materials
Personnel in the work area may include:	workplace personnel site visitors contractors official representatives
Communication in the work area may include:	phone electronic data interchange fax email internet radio oral, aural or signed communications

Loading operations may be carried out:	manually with the aid of lifting equipment and/or appliances
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures enterprise procedures organisational procedures established procedures
Personal protective equipment may include:	gloves safety headwear and footwear safety glasses two-way radios high visibility clothing
Information/documents may include:	goods identification numbers and codes, including ADG and IMDG markings and HAZCHEM signs manifests, bar codes, goods and container identification manufacturers specifications for equipment/tools workplace procedures and policies for the loading and unloading of goods/cargo ADG Code and associated regulations supplier and/or client instructions material safety data sheets EPGs and Initial Response Guide (HB76:1998 or equivalent) codes of practice including the National Standards for Manual Handling and the Industry Safety Code award, enterprise bargaining agreement, other industrial arrangements relevant Australian standards and certification requirements quality assurance procedures emergency procedures Load Restraint Guide

Applicable regulations and legislation may include

relevant Australian standards and regulations including state/territory mass and loading regulations

Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including:

Australian and International Dangerous Goods Codes

Australian Marine Orders and the International Maritime Dangerous Goods Code

IATA Dangerous Goods by Air regulations

Australian and International Explosives Codes

relevant state/territory environmental protection legislation

relevant state/territory OH&S legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLID707C Prepare cargo for transfer with slings

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to prepare cargo for transfer with slings in accordance with workplace requirements and relevant regulatory requirements, including preparing for transfer of cargo, calculating Safe Working Load (SWL) or Working Load Limit (WLL) of slings and loads, slinging cargo and unslinging cargo, and strapping and unstrapping goods.

Application of the Unit

Work must be carried out in accordance with codes/regulations and workplace requirements relevant to the preparation of cargo for transfer with slings.

Safety checks and equipment tests are performed under limited supervision.

Work involves the application of regulatory requirements and workplace procedures to the preparation of cargo for transfer with slings in the stevedoring, transport, warehousing, distribution and/or storage industries.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Prepare for transfer of cargo	<p>1.1 Working area is prepared and maintained in accordance with national standards and safety codes and site operating procedures</p> <p>1.2 Unsafe work practices and/or faulty equipment is reported in accordance with enterprise procedures</p> <p>1.3 Correct protective equipment is identified and worn</p>
2 Calculate Safe Working Load or Working Load Limit of slings and loads	<p>2.1 Safe Working Load (SWL) or Working Load Limit (WLL) is calculated using standardised formulae for different types of lifting cables</p> <p>2.2 Lifting equipment is checked to determine the safe working load</p> <p>2.3 Slings gear is checked for conformity with safety equipment</p>
3 Sling cargo and unslung cargo	<p>3.1 Cargo is slung/unslung in accordance with national standards, safety codes and site operating procedures</p> <p>3.2 Correct securing devices are identified and used</p> <p>3.3 Load is steadied by tag lines as required</p> <p>3.4 Damaged cargo is identified and reported in accordance with enterprise procedures</p> <p>3.5 Slings attachments are released from load ensuring no injury to personnel or damage to machinery or cargo</p>
4 Strap and unstrap goods	<p>4.1 Cargo is strapped and unstrapped in accordance with national standards, safety codes and site operating procedures</p> <p>4.2 Mechanical strapping equipment is used in accordance with manufacturers instructions</p> <p>4.3 Damaged cargo is identified and reported in accordance with enterprise reporting procedures</p>

- 4.4 Strapping arrangements are secured/released to/from load ensuring no injury to personnel or damage to machinery or cargo

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Regulations relevant to the transfer of cargo with slings, including, where relevant, the Australian Dangerous Goods Code and relevant bond, quarantine or other legislative requirements

Relevant OH&S and environmental protection procedures and guidelines

Workplace procedures and policies for the transfer of cargo with slings

Focus of operation of work systems, equipment, management and site operating procedures for the transfer of cargo with slings

Cargos potential for toxicity, reactivity, material grade, type and purpose including information from relevant material safety data sheets and Australian Dangerous Goods Code documentation (where applicable)

Gear and equipment used during the transfer of cargo with slings and the precautions and procedures that should be followed in their use

Problems that may occur when preparing cargo for transfer with slings and appropriate action that can be taken to resolve the problems

Documentation and record requirements

Housekeeping standards procedures required in the workplace

Site layout and obstacles

Required skills:

Communicate effectively with others when preparing cargo for transfer with slings

Read and interpret instructions, procedures, information and signs relevant to the preparation of cargo for transfer with slings

Interpret and follow operational instructions and prioritise work

Complete documentation related to the preparation of cargo for transfer with slings

Operate electronic communication equipment to required protocol

Work collaboratively with others when preparing cargo for transfer with slings

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may occur when preparing cargo for transfer with slings in accordance with regulatory requirements and workplace procedures

Plan own work including predicting consequences and identifying improvements

Implement contingency plans for unanticipated situations that may arise when preparing cargo for transfer with slings

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the preparation of cargo for transfer with slings

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Select and use relevant gear and equipment when preparing cargo for transfer with slings

Use balance points and estimate weights in setting up loads to be shifted

Operate and adapt to differences in equipment in accordance with standard operating procedures

Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Work may be conducted:	in a range of work environments by day or night
Customers may be:	internal or external
Workplaces may comprise:	large, medium or small worksites
Work may be conducted in:	limited or restricted spaces exposed conditions controlled or open environments even or uneven surfaces wet or dry surfaces
Slinging gear may include:	fibre ropes wire ropes chains webbing slings
Hazards in the work area may include exposure to:	chemicals and fumes dangerous or hazardous substances stationary and moving machinery, goods, materials and vehicular traffic contamination of, or from, materials being handled service lines spills, leakages and ruptures dust/vapours faulty gear/equipment/tools
Requirements for work may include:	site restrictions and procedures use of safety and personal protective equipment communications equipment specialised lifting and/or handling equipment

	additional gear and equipment
	noise restrictions
	hours of operations
	authorities and permits
Consultative processes may involve:	workplace personnel including supervisors and managers
	equipment manufacturers and suppliers
	site visitors and contractors
	union representatives, industrial relations and OH&S specialists
	other professional or technical staff
Communication in the work area may include:	phone
	fax
	email
	internet
	RF communications
	bar code readers
	oral, aural or signed communications
Personal protective equipment may include:	gloves
	safety headwear and footwear
	safety glasses
	two-way radios
	respirators and fume masks
	protective clothing
	high visibility clothing
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures
Information/documents may include:	workplace procedures and policies for the preparation of cargo for transfer with slings
	goods identification numbers and codes
	manifests, bar codes, goods and container

identification/serial number
manufacturers specifications
equipment identification labels, bar codes
and serial numbers
supplier and/or client instructions
relevant OH&S requirements and policies
relevant Australian standards and
certification requirements including
Australian Standard on wire rope, chain and
webbing slings
material safety data sheets where applicable
codes of practice including the National
Standards for Manual Handling and the
Industry Safety Code
relevant legislation, regulations and related
documentation including the ADG Code
(where applicable)
award, enterprise bargaining agreement and
other industrial arrangements
quality assurance procedures
emergency procedures

Applicable regulations and legislation may
include:

relevant codes and regulations pertaining to
the transfer of cargo with slings
relevant state/territory OH&S legislation
relevant state/territory environmental
protection legislation
relevant Australian standards and
certification requirements, including
Australian Standard 2359 - Industrial Truck
Code
licence, patent or copyright arrangements
water and road use and licence arrangements
export/import/quarantine/bond requirements
workplace relations regulations including
equal opportunity, equal employment
opportunity and affirmative action legislation
workers compensation regulations

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling

TLIE607D Collect, analyse and present workplace data and information

Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to collect, analyse and present workplace data and information including identifying required information, analysing and preparing information for use, explaining information, and presenting workplace information to others.

Application of the Unit

Data collection, analysis and presentation is carried out as an integral part of operations in the context of the workplace concerned.

Work is performed under general or limited supervision, generally within a team environment. It involves the application of established principles and practice to the collection, analysis and presentation of information and data as part of workplace operations.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify required information	<p>1.1 Purpose of the information/data collection is identified</p> <p>1.2 Sources of information are established</p> <p>1.3 Appropriate information is collected</p>
2 Prepare information for use	<p>2.1 Information is collated and analysed in accordance with workplace procedures</p> <p>2.2 Processed information is organised and presented in a logical manner</p> <p>2.3 Checks for accuracy are made</p>
3 Explain information	<p>3.1 Data collection and analysis is explained to others in a way that effectively contributes to the workplace operations</p> <p>3.2 Outcomes of data/information analysis are presented to others using appropriate presentation modes and resources</p> <p>3.3 Questions are answered and appropriate clarifications are given</p>
4 Present workplace information	<p>4.1 Processed information is forwarded to appropriate personnel in accordance with workplace procedures</p> <p>4.2 Processed information is collated and stored in accordance with workplace procedures</p>

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant procedures and duty of care requirements

Relevant OH&S responsibilities

Sources of information and data and procedures for processing the information for workplace use

Protocols and procedures for the collection, analysis and presentation of workplace information and data using relevant technology

Presentation and communication techniques including an understanding of barriers to effective communication and how to overcome them

Basic principles of effective presentation and communication of information

Techniques for communicating effectively with a multilingual persons or persons with a limited ability to speak or understand English

Typical presentation and communication problems and appropriate action and solutions

Required skills:

Communicate effectively with others when collecting, analysing and presenting workplace data and information

Read and interpret instructions and procedures relevant to the collection, analysis and presentation of workplace data and information

Interpret and follow operational instructions and prioritise work

Complete documentation related to the collection, analysis and presentation of workplace data and information

Identify and use required communication and presentation technology

Work collaboratively with others when collecting, analysing and presenting workplace data and information

Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others

Promptly report and/or rectify any identified problems that may arise when collecting, analysing and presenting workplace data and information in accordance with regulatory requirements and workplace procedures

Plan own work including predicting consequences and identifying improvements

Implement contingency plans for unanticipated situations that may arise when collecting, analysing and presenting workplace data and information

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail

Operate and adapt to differences in equipment in accordance with standard operating procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- the underpinning knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

- a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

- access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

- relevant and appropriate materials and/or equipment, and/or

- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

- through appropriately simulated activities at the registered training organisation, and/or

- in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Data collection, analysis and presentation will be:	that required for workplace operations may occur by day or night and in a variety of work contexts
Customers may be:	internal or external
Presentation modes may include:	written documentation oral reports group presentations using appropriate technology completion of standard forms and checklists routine written reporting entry of collected/processed information into a computer participation in workplace discussions
Presentations/communications may involve:	English-speaking persons multilingual staff persons with limited ability to communicate in English
Presentation/communication problems may include:	misunderstanding limited ability of others to communicate in English noisy environments or communications channels illegible writing or print use of non-standard vocabulary incorrect assumption that information has been received and/or correctly understood
Depending on workplace context, consultative processes may involve	managers supervisors/team leaders workplace personnel

clients
private and/or public sector security
personnel
police
security consultants
visitors
contractors
official representatives
union representatives
industrial relations
OH&S specialists
other professional or technical staff

Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:

company procedures
enterprise procedures
organisational procedures
established procedures

Presentation/communication may involve the use of a range of technology, including:

phone
electronic data interchange
fax
email
internet
radio
overhead or computer controlled projector
plain or electronic white board
flip charts
microphone and amplifier
video player and monitor

Information/documentation may include:

workplace procedures, checklists and instructions
operations manuals
induction documentation
competency standards and training materials
job specifications

manufacturers specifications
HAZCHEM and dangerous/hazardous goods codes
goods identification numbers and codes
manifests, bar codes, goods and container identification
manufacturers specifications
workplace policies
supplier and/or client instructions
material safety data sheets
relevant codes of practice including the national standards for manual handling and the industry safety code
legislation, regulations and related documentation
award, enterprise bargaining agreement, other industrial arrangements
standards and certification requirements
quality assurance procedures
emergency procedures

Applicable regulations and legislation may include:

relevant regulations, standards and codes of practice, including the national standards for manual handling and industry safety codes
dangerous goods and freight regulations and codes
relevant Australian and state/territory standards and certification requirements
relevant Australian and state/territory OH&S legislation
equal employment legislation and related policies
environmental protection regulations

Unit Sector(s)

Not applicable.

Competency Field

E - Communication and Calculation

UEPOPS341A Shut down a Steam Turbine

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

1)

This unit deals with the skills and knowledge required to conduct a shut-down of a steam turbine to where it can be placed at rest.

Application of the Unit

Application of the Unit

3)

This unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training.

License to practise

3.1)

The skills and knowledge described in this unit may require a licence to practise in the workplace in some States or Territories. There may also be additional assessment activities required by regulatory authorities for the issue of the licence to practise.

Practice in this unit is subject to regulations directly related to Occupational Health and Safety and where applicable contracts of training such as apprenticeships.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite Unit(s) 2)

Competencies 2.1)

There are no prerequisite units.

Employability Skills Information

Refer to the Evidence Guide

Elements and Performance Criteria Pre-Content

5) Elements describe the essential outcomes of a unit of competency. Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and prepare work	1.1 Safety issues are identified to comply with enterprise/site requirements
	1.2 Work requirements are identified from relevant personnel and documentation
	1.3 The turbine shutdown schedule is ascertained from relevant documentation and in accordance with enterprise/site requirements
	1.4 Pre-operational checks are carried out on plant according to manufacturer recommendations and site requirements
	1.5 Where appropriate, the teams and individuals roles and responsibilities within the team are identified and, where required, assist in the provision of the on-the-job training

ELEMENT	PERFORMANCE CRITERIA
2 Operate plant	2.1 Turbine output is adjusted to meet demand whilst observing operating requirements and minimising turbine life expenditure
	2.2 Plant is operated in accordance with enterprise and manufacturer operating procedures
	2.3 Plant is monitored and observed to detect deviations from normal operating conditions
	2.4 Corrective actions are taken to rectify abnormalities in accordance with manufacturer and enterprise/site procedures
3 Test plant operation	3.1 Tests are performed in accordance with defined procedures applicable to the operational test
	3.2 System and plant is observed for correct operational response
	3.3 Corrective action is taken when response is not in accordance with documentation, plant integrity or personnel safety requirements
	3.4 Plant is returned to required operational status upon completion of test
4 Analyse system faults	4.1 Causes of abnormal plant operating conditions are identified by analysing the technical and operational information in a logical and sequential manner
	4.2 Corrective action taken is in accordance with enterprise/site procedures
	4.3 Plant integrity and personnel safety is maintained through consultation with appropriate personnel, and reference to plant, technical and operational documentation
	4.4 Appropriate personnel are notified when defects are detected
5 Complete documentation	5.1 Documentation is updated and plant problems, movements, abnormalities and status are reported and logged in accordance with enterprise/site procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

6) This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of shutting-down a steam turbine for a permit to work.

The extent of the Essential Knowledge and Associated Skills required follows:

Evidence shall show that knowledge has been acquired for safe working practices of:

- Relevant Occupational Health and Safety regulations
- Relevant statutory legislation
- Relevant enterprise/site safety procedures
- Enterprise/site emergency procedures and techniques
- Relevant plant and equipment, its location and operating parameters
- Plant status
- Environmental legislation
- Enterprise recording procedures
- Communication principles
- Control and data acquisition systems
- Computers and software
- Supervisory, alarm, protection and control equipment
- Emergency procedures
- Valve and actuator types and characteristics
- Turbine speed control equipment
- Heat transfer principles
- The system components and interaction
- Electricity distribution systems AC and DC
- The system components and their interaction with other plant and equipment external to that covered by this competency
- Station water distribution systems
- Fire protection control systems

REQUIRED SKILLS AND KNOWLEDGE

- Power and control oil systems
- Compressed air systems
- Principles of condensate and feedwater chemical treatment
- Turbine life expenditure and control
- Turbine bypass system
- Vacuum raising and turbine gland sealing systems
- Introduction to power production plant
- Typical arrangements of power production plant
- Mathematics
- Mechanics
- Thermodynamics
- Properties of matter
- Lubrication and bearings
- Pumps
- Liquid pumping systems
- Power plant cycle
- General responsibilities for power production plant operations
- Turbine construction and operating principles
- Turbine lubrication and oil systems
- Condensate and feedwater systems
- Feedwater heating and drainage systems
- Circulating water system
- Condenser systems
- Turbine operations
- Turbine efficiency
- Electrical principles
- Transformers
- Electric motors
- Switchgear
- Heating of electrical equipment
- Electrical protection
- Schematic diagrams
- Safe operating principles

Specific skills needed to achieve the Performance Criteria:

REQUIRED SKILLS AND KNOWLEDGE

- Apply relevant Occupational Health and Safety regulations
- Apply relevant statutory legislation
- Apply relevant enterprise/site safety procedures
- Apply enterprise/site emergency procedures and techniques
- Apply enterprise recording procedures
- Identify plant status
- Prepare plant/equipment for operation
- Organise resources
- Operate turbine plant and equipment
- Apply turbine cooling techniques and procedures
- Apply diagnostic and testing techniques
- Identify and respond to abnormal plant operating conditions
- Plan and prioritise work
- Use relevant hand tools
- Communicate effectively
- Apply data analysis techniques and tools
- Use diagrams, drawings and symbols
- Co-ordinate the operation of equipment to maintain plant integrity, personnel safety, continuity of supply and optimum efficiency.

Evidence Guide

EVIDENCE GUIDE

8) This provides essential advice for assessment of the unit of competency and must be read in conjunction with the Performance Criteria and the Range Statement of the unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all components parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment

8.1)

Longitude competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and, Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments.

Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

8.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines - UEP06". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:

- Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and Range Statement
- Apply sustainable energy principles and practices as specified in the Performance Criteria and Range Statement
- Demonstrate an understanding of the essential knowledge and associated skills as described in 6) Essential Knowledge and Associated Skills of this unit
- Demonstrate an appropriate level of skills enabling employment
- Conduct work observing the relevant Anti Discrimination legislation, regulations, polices and workplace procedures
- Demonstrated performance across a representative range of contexts from the prescribed items below:
 - Knowledge and application of relevant sections of: Occupational Health and Safety legislation; Statutory legislation; Enterprise/site safety procedures; Enterprise/site emergency procedures
 - Preparation and planning of work
 - Operation of turbine plant and equipment
 - Operationally testing plant
 - Analysing plant faults
 - Monitoring plant operation
 - Knowledge of the system components and their interaction
 - Knowledge of turbine shutdown and cooling processes
 - Knowledge of turbine supervision and control systems
 - Dealing with an unplanned event by drawing on essential knowledge and skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items

Context of and specific resources for assessment

8.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and

materials to undertake actual work as prescribed by this unit.

Competency Standards should be assessed in the workplace or simulated workplace and under the normal range of workplace conditions.

Assessment of this unit will be supported with documentary evidence, by means of endorsement stating type and application of work.

In addition to the resources listed above in Context of assessment', evidence should show competency working, in limited spaces, with different types of plant and equipment as well as different structural/construction types and methods and in a variety of environments.

Method of assessment

8.4)

This unit shall be assessed by methods given in Volume 1, Part 3 Assessment Guidelines.

Note: Competent performance with inherent safe working practices is expected in the Industry to which this unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units

8.5)

There are no recommended concurrent assessments with this unit, however in some cases efficiencies may be gained in terms of learning and assessment effort being concurrently managed with allied competency standard units where listed.

Nil

Key competencies 8.6)

Evidence that particular key competencies have been achieved within this unit is in the context of the following Performance Criteria of evidence. See Volume 2, Part 4 for an explanation of Key competencies and levels of this Training Package.

Key competencies	Example of Application	Performance Level
How are ideas and information communicated within this competency?	Refer to the following example of application: Explain ideas and actions, make suggestions for alternative actions and deal with contingencies and non-routine situations.	2
How can information be collected, analysed and organised?	Refer to the following example of application: Information with regard to operations, faults and maintenance may be observed and monitored for analysis and organised into records and reports.	2
How are activities planned and organised?	Refer to the following example of application: Planning the required activity, to include co-ordination and use of equipment, materials and tools to avoid backtracking and rework.	1
How is team work used within this competency?	Refer to the following example of application: Share tasks and provide appropriate support to other team members in completion of work tasks to meet the team's goals.	2
How are mathematical ideas and techniques used?	Refer to the following example of application: Calculation of time to complete tasks, estimation of distances, levels, loads and material requirements.	1
How are problem solving skills applied?	Refer to the following example of application: Determine solutions which focus on long and short-term resolution of work task problems.	2

How is use of technology applied?	Refer to the following example of application: Access, communicate, measure and record information with regard to operations and performance of plant and equipment.	1
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Skills Enabling Employment

8.7)

Evidence that competency in this unit incorporates skills enabling employment is in the context of the following performance. See Volume 2, Part 5 for definitions and an explanation of skills enabling employment.

Skills for Employment		Example of Application
1	Developing and using skills within a real workplace	Refer to the following example of application: Completion of tasks within an acceptable timeframe and performance with some supervision.
2	Learning to learn in the workplace	Refer to the following example of application: Comprehension and application of theoretical knowledge to well-developed skills.
3	Reflecting on the outcome and process of work task	Refer to the following example of application: Focused on improvement in own and other team member's performance in the workplace.
4	Interacting and understanding of the context of the work task	Refer to the following example of application: Working understanding of the processes and systems which apply to the workplace.
5	Planning and organising the meaningful work task	Refer to the following example of application: Achieving work tasks in a timely manner and ensuring that the work team achieves its stated work goals.
6	Performing the work task in non-routine or contingent situations	Refer to the following example of application: Seek advice and apply solutions to problems relevant to the workplace environment.

Range Statement

RANGE STATEMENT

7) This relates to the unit of competency as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

Plant and equipment may include turbine and auxiliary plant turbine by-pass system plant; turbine lubrication and power/control oil systems; condensate and feedwater system plant to boiler economiser inlet valve; condensate polishing plant; high and low pressure heating systems; steam condensing and cooling systems; condenser vacuum raising equipment; turbine gland sealing equipment; condenser cooling water systems plant; boiler feedwater de-aerating equipment; condensate and feedwater chemical treatment equipment; electric motors AC and DC; electricity distribution systems AC and DC; diesel engine driven auxiliary plant; station water distribution systems; hydraulic oil system; pumps; compressed air systems; computers with equipment control functions; supervisory, alarm, protection and control equipment; and pumps.

Safety standards may include relevant sections of Occupational Health and Safety legislation, enterprise safety rules, Australian standards, national standards for plant and relevant state and federal legislation.

Information and documentation sources may include verbal or written communications; enterprise safety rules documentation; enterprise operating instructions; manufacturer operational and maintenance manuals; equipment and alarm manuals, enterprise log books, dedicated computer equipment, enterprise standing instructions and plant notes.

Technical and operational indicators may include stimuli (audio, smell, touch, visual), remote or local indicators and recorders, computers and alarms (visible and/or audible).

Communications may be by means of telephone, two way radio, pager, computer (electronic mail) and operating log (written or verbal).

Tests may include motor direction checks, stand-by plant "cut-in" tests, pre and post shut-down tests, valves operating checks, alarm and protection tests and turbine overspeed tests

Appropriate personnel to consult, give or receive direction may include supervisor/team leader or equivalent; technical and engineering officers or equivalent; maintenance staff; power plant operations personnel or equivalent.

Operating environment may be remote from plant and equipment being operated; where operation is assisted by remote indicators of plant status and other parameters monitored; in wet/noisy/dusty/hot areas; during night periods; and during inclement or otherwise harsh weather conditions.

RANGE STATEMENT

Unit operations may include emergency shut down; turbine shutdown, with or without turbine bypass, or by using forced cooling procedures.

Faults and abnormal operating conditions may include loss of a major auxiliary; turbine water ingress; excessively high turbine and turbine valves heating/cooling rates/differentials; high condenser vacuum; condenser tube leak; high dissolved oxygen, conductivity; high turbine bearing temperatures/ vibration; high/low bearing oil temperature; loss of turbine bearing oil flow/pressure; low/high pressure heaters malfunctions; turbine bypass system malfunctions; actuator/valve mechanical/electrical faults/failure; failed field devices; and turbine protection.

Generic terms are used throughout this Training Package for vocational standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms are given in Volume 2, Part 1.

Unit Sector(s)

Not Applicable

Literacy and numeracy skills

Literacy and numeracy skills 2.2)

Participants are best equipped to achieve this unit if they have reading, writing and maths skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 Literacy and Numeracy

Reading	3	Writing	3	Maths	3
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Competency Field

Competency Field 4)

Operations.

UEPOPS411A Run Up a Steam Turbine

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

1)

This unit deals with the skills and knowledge required to conduct a steam turbine run up to a stable operating condition.

Application of the Unit

Application of the Unit

3)

This unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training.

License to practise

3.1)

The skills and knowledge described in this unit may require a licence to practise in the workplace in some States or Territories. There may also be additional assessment activities required by regulatory authorities for the issue of the licence to practise.

Practice in this unit is subject to regulations directly related to Occupational Health and Safety and where applicable contracts of training such as apprenticeships and the like.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite Unit(s) 2)

Competencies 2.1)

There are no prerequisite units.

Employability Skills Information

Refer to the Evidence Guide

Elements and Performance Criteria Pre-Content

5) Elements describe the essential outcomes of a unit of competency

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan and prepare work	1.1 Safety issues are identified to comply with enterprise/site requirements
	1.2 Work requirements are identified from relevant personnel and documentation
	1.3 Pre-operational checks are carried out on plant according to manufacturer's recommendations and site requirements
	1.4 The turbine running up and loading schedule are ascertained from relevant documentation and in accordance with enterprise/site requirements
	1.5 Where appropriate, the teams and individuals roles and responsibilities within the team are identified and, where required, assist in the provision of the on-the-job training.

ELEMENT	PERFORMANCE CRITERIA
2 Operate plant	2.1 Plant is operated in accordance with enterprise and manufacturer's operating procedures
	2.2 Plant is monitored and observed to detect deviations from normal operating conditions
	2.3 Corrective actions are taken to rectify abnormalities in accordance with manufacturer's and enterprise/site procedures
3 Test plant operation	3.1 Tests are performed in accordance with defined procedures applicable to the operational test
	3.2 System and plant are observed for correct operational response
	3.3 Corrective action is taken when response is not in accordance with documentation, plant integrity or personnel safety requirements
	3.4 Plant is returned to required operational status upon completion of test
4 Analyse system faults	4.1 Causes of abnormal plant operating conditions are identified by analysing the technical and operational information in a logical and sequential manner
	4.2 Corrective action taken is in accordance with enterprise/site procedures
	4.3 Plant integrity and personnel safety is maintained through consultation with appropriate personnel, and reference to plant, technical and operational documentation
	4.4 Appropriate personnel are notified when defects are detected
5 Complete documentation	5.1 Documentation is updated and plant problems, movements, abnormalities and status are reported and logged in accordance with enterprise/site procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

6) This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired running up a steam turbine.

The extent of the Essential Knowledge and Associated Skills required follows:

Evidence shall show that knowledge has been acquired for safe working practices of:

- Relevant Occupational Health and Safety regulations
- Relevant statutory legislation
- Relevant enterprise/site safety procedures
- Enterprise/site emergency procedures and techniques
- Relevant plant and equipment, its location and operating parameters
- Plant status
- Environmental legislation
- Enterprise recording procedures
- Communication principles
- Control and data acquisition systems
- Computers and software
- Supervisory, alarm, protection and control equipment
- Emergency procedures
- Valve and actuator types and characteristics
- Turbine speed control equipment
- Heat transfer principles
- The system components and interaction
- Electricity distribution system, AC and DC
- The system components and their interaction with other plant and equipment external to that covered by this competency
- Station water distribution systems
- Fire protection control systems
- Power and control oil systems
- Compressed air systems
- Turbine life expenditure and control

REQUIRED SKILLS AND KNOWLEDGE

- Turbine bypass system
- Vacuum raising and turbine gland sealing systems;
- Introduction to power production plant
- Typical arrangements of power production plant
- Mathematics
- Mechanics
- Thermodynamics
- Properties of matter
- Lubrication and bearings
- Pumps
- Liquid pumping systems
- Power plant cycle
- General responsibilities for power production plant operations
- Turbine construction and operating principles
- Turbine lubrication systems
- Condensate and feedwater systems
- Feedwater heating and drainage systems
- Circulating water system
- Condenser systems
- Turbine operations
- Turbine efficiency
- Electrical principles
- Transformers
- Electric motors
- Switchgear
- Heating of electrical equipment
- Electrical protection
- Schematic diagrams
- Safe operating principles

Specific skills needed to achieve the Performance Criteria:

- Apply relevant Occupational Health and Safety regulations
- Apply relevant statutory legislation
- Apply relevant enterprise/site safety procedures
- Apply enterprise/site emergency procedures

REQUIRED SKILLS AND KNOWLEDGE

and techniques

- Apply enterprise recording procedures
- Identify plant status
- Prepare plant/equipment for operation
- Organise resources
- Operate turbine plant and equipment
- Apply diagnostic and testing techniques
- Identify and respond to abnormal plant operating conditions
- Plan and prioritise work
- Use relevant hand tools
- Communicate effectively
- Apply data analysis techniques and tools
- Use diagrams, drawings and symbols
- Coordinate the operation of equipment to maintain plant integrity, personnel safety, continuity of supply and optimum efficiency.

Evidence Guide

EVIDENCE GUIDE

8) This provides essential advice for assessment of the competency standard unit and must be read in conjunction with the Performance Criteria and the Range Statement of the unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this competency standard unit and shall be used in conjunction with all components parts of this unit and, performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment

8.1)

Longitude competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the Industry preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and regulatory policy.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments.

EVIDENCE GUIDE

Sample assessment instruments are included in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

8.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines - UEP06". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:

EVIDENCE GUIDE

- Implement OHS workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and Range Statement
- Apply sustainable energy principles and practices as specified in the Performance Criteria and Range Statement
- Demonstrate an understanding of the essential knowledge and associated skills as described in 6) Essential Knowledge and Associated Skills of this unit
- Demonstrate an appropriate level of skills enabling employment
- Conduct work observing the relevant Anti Discrimination legislation, regulations, polices and workplace procedure
- Demonstrated performance across a representative range of contexts from the prescribed items below:
 - The knowledge and application of relevant sections of: Occupational Health and Safety legislation; Statutory legislation; Enterprise/site safety procedures; Enterprise/site emergency procedures
 - The preparation and planning of work
 - The operation of turbine plant and equipment
 - Operationally testing plant
 - Analysing plant faults
 - The knowledge of the system components and their interaction
 - The knowledge of turbine operational processes
 - The knowledge of turbine supervision and control systems
 - The knowledge of heat transfer principles
 - Dealing with an unplanned event by drawing on essential knowledge and skills to provide appropriate solutions incorporated in the holistic assessment with the above listed items.

Context of and specific resources for assessment

8.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.

EVIDENCE GUIDE

- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this unit.

Competency Standards should be assessed in the workplace or simulated workplace and under the normal range of workplace conditions.

Assessment of this unit will be supported with documentary evidence, by means of endorsement stating type and application of work.

In addition to the resources listed above in Context of assessment', evidence should show competency working in limited spaces with different types of plant and equipment as well as different structural/construction types and methods and in a variety of environments.

Method of assessment

8.4)

This unit shall be assessed by methods given in Volume 1, Part 3 "Assessment Guidelines".

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units

8.5)

There are no recommended concurrent assessments with this unit, however in some cases efficiencies may be gained in terms of learning and assessment effort being concurrently managed with allied competency standard units where listed.

Nil

EVIDENCE GUIDE**Key competencies 8.6)**

Evidence that particular key competencies have been achieved within this unit is in the context of the following Performance Criteria of evidence. See Volume 2, Part 4 for an explanation of Key competencies and levels of this Training Package.

Key competencies	Example of Application	Performance Level
How are ideas and information communicated within this competency?	Refer to the following example of application: Explain ideas and actions, make suggestions for alternative actions and deal with contingencies and non-routine situations.	2
How can information be collected, analysed and organised?	Refer to the following example of application: Information with regard to operations, faults and maintenance may be observed and monitored for analysis and organised into records and reports.	2
How are activities planned and organised?	Refer to the following example of application: Planning the required activity, to include co-ordination and use of equipment, materials and tools to avoid backtracking and rework.	2
How is team work used within this competency?	Refer to the following example of application: Coordinate activities of the team and provide appropriate support to other team members in completion of work tasks to meet the team's goals.	2
How are mathematical ideas and techniques used?	Refer to the following example of application: Calculation of time to complete routine projects, operations, tasks, estimation of distances, levels, loads and material requirements.	2
How are problem solving skills applied?	Refer to the following example of application: Determine solutions which focus on long and short-term resolution of work task problems.	2

EVIDENCE GUIDE

How is use of technology applied?	Refer to the following example of application: Access, communicate, measure and provide information to monitor operations and performance of plant and equipment.	2
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Skills Enabling Employment**8.7)**

Evidence that competency in this unit incorporates skills enabling employment is in the context of the following performance. See Volume 2, Part 5 for definitions and an explanation of skills enabling employment.

Skills for Employment		Example of Application
1	Developing and using skills within a real workplace	Refer to the following example of application: Completion of tasks within an acceptable timeframe and performance with some supervision.
2	Learning to learn in the workplace	Refer to the following example of application: Comprehension and application of theoretical knowledge to well-developed skills.
3	Reflecting on the outcome and process of work task	Refer to the following example of application: Focused on improvement in own and other team member's performance in the workplace.
4	Interacting and understanding of the context of the work task	Refer to the following example of application: Working understanding of the processes and systems which apply to the workplace.
5	Planning and organising the meaningful work task	Refer to the following example of application: Achieving work tasks in a timely manner and ensuring that the work team achieves its stated work goals.
6	Performing the work task in non-routine or	Refer to the following example of application: Seek advice and apply solutions to problems relevant to the

contingent situations	workplace environment.
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Range Statement

RANGE STATEMENT

7) This relates to the competency standard unit as a whole, providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

Plant and equipment may include turbine and auxiliary plant; turbine lubrication and power/control oil systems; turbine by-pass system plant; condensate and feedwater system plant; condensate polishing plant; high and low pressure heating systems; steam condensing and cooling systems; condenser vacuum raising equipment; turbine gland sealing equipment; cooling water systems plant; boiler feedwater de-aerating equipment; condensate and feedwater chemical treatment equipment; electric motors AC and DC; electricity distribution systems AC and DC; diesel engine drive auxiliary plant; station water distribution systems; hydraulic oil system; pumps; compressed air systems; computers with equipment control functions; supervisory, alarm and control equipment; and diesel engine drive auxiliary plant.

Safety standards may include relevant sections of Occupational Health and Safety legislation, enterprise safety rules, Australian standards, national standards for plant and relevant State and federal legislation.

Information and documentation sources may include verbal or written communications; enterprise safety rules documentation; enterprise operating instructions; manufacturer's operational and maintenance manuals; equipment and alarm manuals, enterprise log books, dedicated computer equipment, enterprise standing instructions and plant notes; enterprise standing instructions and plant notes.

Technical and operational indicators may include stimuli (audio, smell, touch, visual), remote or local indicators and recorders, computers and alarms (visible and or audible).

Communications may be by means of telephone, two way radio, pager, computer (electronic mail) and operating log (written or verbal).

Tests may include loss of a major auxiliary controls response checks, stand-by plant "cut-in" tests, valves operating checks, turbine valve and emergency governor operation test, pre-start tests, performance tests, heater leak checks and alarm and protection tests.

Appropriate personnel to consult, give or receive direction may include supervisor/team leader or equivalent; other coordinators of energy production or equivalent; technical and engineering officers or equivalent; maintenance staff; other operating staff and contractor staff.

Operating environment may be remote from plant and equipment being operated; where operation is assisted by remote indicators of plant status and other parameters monitored; in wet/noisy/dusty/hot areas, during night periods; and during inclement or

RANGE STATEMENT

otherwise harsh weather conditions.

Unit operations (systems requirements) may include cold start return to service; warm start return to service with or without turbine bypass; and hot restart return to service, with or without turbine bypass.

Faults and abnormal operating conditions may include loss of a major auxiliary; loss of electrical supply to auxiliaries (AC or DC); turbine water ingress; excessively high turbine and turbine valves heating/cooling rates/differentials; high condenser vacuum; condenser tube leak; high dissolved oxygen, conductivity; high turbine bearing temperatures/vibration; high/low bearing oil temperature; loss of turbine bearing oil flow/pressure; low/high pressure heaters malfunctions; turbine bypass system malfunction; actuator/valve mechanical/ electrical faults/failure; failed field devices; and turbine protection.

Generic terms are used throughout this Training Package for vocational standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms are given in Volume 2, Part 1.

Unit Sector(s)

Not Applicable

Literacy and numeracy skills

Literacy and numeracy skills 2.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 Literacy and Numeracy

Reading 4 Writing 4 Numeracy 4

Competency Field

Competency Field 4)

Operations

