Australian Government
Department of Education, Science and Training

SFI04
Seafood Industry Training Package
Imported Units of Competency (BCC to RTD)
Volume Va of VI

Volume
Va of VI

AGRI-FOOD INDUSTRY SKILLS COUNCIL

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Department of Education, Science and Training

AGRI-FOOD INDUSTRY SKILLS COUNCIL

# SFI04
# Seafood Industry Training Package
## Imported Units of Competency (BCC to RTD)
## Volume Va of VI

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INDUSTRY SKILLS COUNCILS
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# SFI04

# Seafood Industry

# Training Package

## Volume Va of VI

Introduction

Qualifications Framework

Assessment Guidelines

Imported Competency Standards (BCC to RTD)

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| Volume I: | Aquaculture Stream |
| Volume II: | Fishing Operations and Fishing Charter Operations Streams |
| Volume III: | Fisheries Compliance Stream |
| Volume IV: | Seafood Processing and Seafood Sales and Distribution Streams |
| Volume Vb: | Imported units of competency (RTD to WRR) |
| Volume VI: | Qualifications in Environmental Management for the Seafood Industry |

This document comprises Volume Va of the endorsed components of SFI04 Seafood Industry Training Package. This volume should not be read in isolation but in the context of the Training Package as a whole. Endorsed by the National Training Quality Council in January 2004. This Training Package is to be reviewed by January 2007.

SFI04 Seafood Industry Training Package

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# Important information for users

The imported units contained in Volume V come from a range of Training Packages. Users should refer to the Introduction of any of the other Volumes for advice on contextualising units of competency.

Users are also reminded that in using an imported unit, they must abide by the guidelines of the originating Training Package to which it belongs for example prerequisite and corequisite requirements.

Due to space constraints, units from the Business Services Training Package have not been included. They can be purchased separately from Australian Training Products Limited (www.atpl.net.au) or obtained from the National Training Information System online database (www.ntis.gov.au).

Maritime units, relevant to vessel Certificates of Competency are included in the relevant Volumes.

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# BCC1005A Use hand and power tools

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Identify hand and power tools | 1.1 | Regular power tools appropriate to construction activities recognised. |
| | | 1.2 | Types of hand and power tools and their functions, identified. |
| | | 1.3 | Sources of power supply recognised. |
| | | 1.4 | OH&S requirements with the use of power tools recognised and adhered to. |
| | | 1.5 | Quality Assurance requirements recognised and adhered to. |
| | | 1.6 | Personal protective equipment selected, correctly fitted and used. |
| 2 | Select hand tools | 2.1 | Hand tools selected consistent with needs of job. |
| | | 2.2 | Tools checked for serviceability and safety, faults reported. |
| | | 2.3 | Equipment selected to hold or support material for power tools application, where applicable. |
| 3 | Use hand tools | 3.1 | Materials located and held in position. |
| | | 3.2 | Hand tools safely and effectively used according to their intended use. |
| | | 3.3 | Hand tools safely located when not in immediate use. |
| 4 | Select power tools | 4.1 | Power tools, leads and hoses selected consistent with needs of job in accordance with standard work practice; faults reported. |

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| | | | |
|---|---|---|---|
| | | 4.2 | Power leads/hoses visually checked for serviceability/safety in accordance with OH&S requirements. |
| 5 | Establish power supply to work location | 5.1 | Route identified for safe placement of leads/hoses clear of hazards. |
| | | 5.2 | Electrical power leads run out to power supply and supported overhead so they are clear of traffic or covered where possible. |
| | | 5.3 | Electric power leads connected to either supply and power board or direct to power tool. |
| | | 5.4 | Air hoses run out to compressed air supply and covered where potential trip hazard exists. |
| | | 5.5 | Hose connected to power tool and air supply. |
| 6 | Use power tools | 6.1 | Material located and held into position for power tool application, where applicable. |
| | | 6.2 | Power tools safely and effectively used in application processes. |
| | | 6.3 | Power tools safely located when not in use. |
| 7 | Clean up | 7.1 | Power tools cleaned, maintained and stored. |
| | | 7.2 | Power leads/hoses cleaned, visually checked and stored. |
| | | 7.3 | Equipment cleaned, maintained and stored. |
| | | 7.4 | Work area cleared and waste removed. |

## RANGE OF VARIABLES

Hand tools include:

- adjustable spanners
- bars (crow and pinch)
- bolt cutters
- brooms
- chisels
- hacksaws
- handsaws
- hammers
- measuring tapes
- nips
- picks/mattocks
- pliers
- sealant gun
- shovels/spades
- sledge hammer
- spanners and wrenches
- spirit level
- straight edge
- string lines
- trowels and floats
- wire cutters
- paint brushes/rollers
- spatula/putty knives

Reports may be written or verbal.

Power supply to include:

- electric
- pneumatic

### Power Tools include

- kanga hammer
- cut off saw
- drills
- nail guns
- staplers
- screwdrivers
- sanders
- angle grinders
- pneumatic wrenches
- circular saws
- jig saws
- planers
- routers

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- hammers
- spades
- tampers

## EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective operation of the particular hand and power tools listed within the range of variables statement relative to the work orientation.

**(1) Critical Aspects and Evidence**

It is essential that competence is observed in the following aspects:

- compliance with Occupational Health and Safety regulations and State/Territory legislation
- applicable to work place operations.
- compliance with organisational policies and procedures including Quality Assurance requirements.
- correct procedures carried out prior to and during the application of construction process.
- safe and effective operational use of tools, plant and equipment, and effective communication.

**(2) Pre-requisite Relationship of Units**

This unit of competency is dependant upon acquiring the relevant pre-requisite competencies in basic industry and basic stream skills.

**(3) Underpinning Knowledge and Skills**

Knowledge
A knowledge of:

- workplace and equipment safety requirements and relevant OH&S legislation
- portable power tools
- hand tools and equipment
- materials
- materials handling whilst operating tools
- Quality Assurance

Skills
The ability to:

- work safely to instructions
- apply appropriate hand eye co-ordination in the use of tools
- handle material during operation of tools
- select material
- apply Quality Assurance
- communicate effectively

**(4) Resource Implications**

The following resources should be made available:

- general construction materials appropriate to the construction process
- plant and equipment appropriate to the construction process
- suitable work area appropriate to the construction process
- appropriate OH&S resources

### (5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency of this unit may be determined concurrently, based upon project work.

Competency shall be assessed while work is undertaken under general guidance, checking at various stages of the process and at the completion of the activity against the performance criteria and specifications.

### (6) Context of Assessment

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, enterprise specific policies and procedures and codes of practice.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCC1006A Use small plant and equipment

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Identify plant and equipment operations and safety requirements | 1.1 | Types and function of plant/equipment used in the construction process identified. |
| | | 1.2 | Quality Assurance requirements recognised and adhered to. |
| | | 1.3 | Method of operation of plant/equipment identified and understood, relevant to manufacturer's recommendations. |
| | | 1.4 | OH&S requirements for guarding and cut off switchings identified. |
| | | 1.5 | OH&S requirements identified for personal protective equipment associated with using machines. |
| | | 1.6 | Personal protective equipment selected, correctly fitted and used. |
| 2 | Select plant and equipment | 2.1 | Plant and equipment selected consistent with needs of job. |
| | | 2.2 | Plant and equipment checked for serviceability/safety and faults reported. |
| 3 | Select fuel, lubricants, tools and equipment | 3.1 | Appropriate fuel and lubricants selected according to manufacturer's specifications. |
| | | 3.2 | Tools and equipment selected in accordance with required machinery checks. |
| 4 | Carry out basic machinery checks | 4.1 | Fuel, oil, hydraulic fluid and water levels checked and adjusted according to manufacturer's manual. |

| | | | |
|---|---|---|---|
| | | 4.2 | Bolts, nuts and attachment couplings tightened and maintained to manufacturer's manual. |
| | | 4.3 | Function of controls and gauges checked and adjusted where necessary to comply with manufacturer's manual. |
| 5 | Carry out machine start-up/shut-down procedures | 5.1 | Standard start-up procedures conducted to requirements of operator's manual. |
| | | 5.2 | Standard shut-down procedures conducted to requirements of operator's manual. |
| 6 | Use plant and equipment | 6.1 | Plant and equipment safely and effectively used. |
| | | 6.2 | Site hazards identified in use of plant and equipment. |
| | | 6.3 | Plant and equipment safely located when not in immediate use. |
| 7 | Carry out periodic maintenance | 7.1 | Periodic maintenance carried out to requirements of operator's manual. |
| 8 | Clean up | 8.1 | Waste material disposed of safely. |
| | | 8.2 | Surplus fuel and lubricants returned to store. |
| | | 8.3 | Plant, tools and equipment cleared, maintained and stored. |

## RANGE OF VARIABLES

Plant and equipment include:

- all small mechanical construction equipment including
- compressor
- concrete mixer
- industrial wet and dry vacuum cleaner
- pallet trolley
- elevated work platforms

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- rollers
- compaction equipment
- pumps and wheelbarrow
- brick/masonry saw
- terrazzo grinders
- hoists

Reports and/or instruction may be written or verbal.

## EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective operation of particular small plant listed within the range of variables statement relative to the work orientation.

**(1) Critical Aspects of Evidence**

It is essential that competence is observed in the following aspects:

- compliance with Occupational Health & Safety regulations and State/Territory legislation applicable to workplace operations
- compliance with organisational policies and procedures including Quality Assurance requirements
- correct procedures carried out prior to and during the application of construction process
- safe and effective operational use of tools, plant and equipment and effective communication

**(2) Pre-requisite Relationship of Units**

This unit of competency is dependant upon acquiring the relevant pre-requisite competencies in basic industry and basic stream skills.

**(3) Underpinning Knowledge and Skills**

Knowledge
A knowledge of:

- workplace and equipment safety requirements
- portable power tools applicable to the construction process
- hand tools and a range of small plant and equipment
- materials
- materials handling relative to small plant and equipment
- Quality Assurance
- workplace communication processes

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools relevant to the construction process
- handle material
- apply Quality Assurance
- communicate effectively

### (4) Resource Implications

The following resources should be made available:

- general construction materials appropriate to the construction process
- hand and power tools appropriate to the construction process
- small plant and equipment appropriate to the construction process
- suitable work area appropriate to the construction process
- appropriate OH&S resources

### (5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon project work.

Competency shall be assessed while work is undertaken under general guidance, checking at various stages of the process and at the completion of the activity, against the performance criteria and specifications.

### (6) Context of Assessment

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, enterprise specific policies and procedures and codes of practice.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCC1009A Carry out manual excavation

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Select tools and equipment | 1.1 | Quality Assurance requirements recognised and adhered to. |
| | | 1.2 | OH&S requirements adhered to. |
| | | 1.3 | Personal protective equipment items selected, correctly fitted and used. |
| | | 1.4 | Hand tools and equipment consistent with needs of job selected and checked for serviceability, and faults reported. |
| 2 | Dig small excavations by hand | 2.1 | Post holes, small pits and trenches safely dug under direction with hand tools. |
| | | 2.2 | Service markers or taped areas identified. |
| | | 2.3 | Damage or interference with underground services (power, water, gas, telephone) avoided. |
| | | 2.4 | Trench collapse prevention procedure undertaken in accordance with legislative requirements, where excavation is in unstable ground. |
| 3 | Clean out excavation | 3.1 | Excavation cleaned out with hand tools, free from loose material. |
| 4 | Erect safety equipment | 4.1 | Safety barricades, signs and lights erected in position. |
| 5 | Clean up | 5.1 | Loose material cleared away from edge of excavation. |
| | | 5.2 | Tools and equipment cleaned, maintained and store. |

## RANGE OF VARIABLES

Work carried out in a team situation under direct supervision. Applies to trench/excavation depth not exceeding 1.5m.

Excavations include:

- post holes
- pits
- trenches
- levelling of work area

Reports may be written or verbal.

## EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective excavation for the different types of excavations listed within the range statement relative to the work orientation.

**(1) Critical Aspects of Evidence**

It is essential that competence is observed in the following aspects:

- compliance with Occupational Health and Safety regulations and State/Territory legislation applicable to workplace operations
- compliance with organisational policies and procedures including Quality
- assurance requirements
- correct procedures carried out prior to and during the application of construction process.
- safe and effective operational use of tools, plant and equipment
- can act upon instruction relative to the location of excavations

**(2) Pre-requisite Relationship of Units**

This unit of competency is dependant upon acquiring the relevant pre-requisite competencies in basic industry and basic stream skills.

**(3) Underpinning Knowledge and Skills**

Knowledge
A knowledge of:

- workplace and equipment safety requirements
- hand tools and equipment
- materials
- materials handling
- measurement and calculations
- Quality Assurance
- soils stability
- range of inground services relative to relevant markets/identifiers

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Skills

The ability to:

- work safely to instructions
- use hand tools
- handle material
- measure
- apply Quality Assurance
- communicate effectively

## (4) Resource Implications

The following resources should be made available:

- general construction materials appropriate to the construction process
- hand and power tools appropriate to the construction process
- suitable work area appropriate to the construction process
- suitable plans/drawings and specifications
- OH&S requirements

## (5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently based upon project work.

Competency shall be assessed while work is undertaken under general guidance, checking at various stages of the process and at the completion of the activity against the performance criteria and specifications.

## (6) Context of Assessment

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be intermittent checking at various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, enterprise specific policies and procedures and codes of practice.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCC2004A Lay pipes

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Plan and prepare job | 1.1 | OH&S requirements adhered to. |
| | | 1.2 | Quality Assurance requirements recognised and adhered to. |
| | | 1.3 | Personal protective equipment selected, correctly fitted and used. |
| | | 1.4 | Tools and equipment selected consistent with requirements of job. |
| | | 1.5 | Materials required for job transported to location and stacked in a safe position. |
| 2 | Set out and excavate trenches | 2.1 | Location and depths of trenches determined from job drawings. |
| | | 2.2 | Trench location set out with pegs and string line and clearly marked with appropriate marking material. |
| | | 2.3 | Manual support provided to machine operator with excavation of trenches, shoring or battering. |
| | | 2.4 | Trenches cleaned out by hand and corners left square. |
| | | 2.5 | Trench depths and grades checked for conformity to job requirements. |
| 3 | Install bedding materials | 3.1 | Bedding materials laid and consolidated to specified depths and grades. |
| 4 | Lower and position pipes | 4.1 | Pipes installed/lowered into position and in line with appropriate mechanical equipment. |
| | | 4.2 | Pipe joints constructed to job specification. |

| | | | |
|---|---|---|---|
| | | 4.3 | Pipe installed to specifications. |
| | | 4.4 | Pipe back filled to specifications and cover left level with surrounding ground. |
| 5 | Clean up | 5.1 | Site cleared and excess soil, debris and unwanted materials removed. |
| | | 5.2 | Tools and equipment cleaned, maintained and stored. |

## RANGE OF VARIABLES

This unit applies to the preparation and installation of pipes in civil works.

Pipes include:

- concrete
- steel
- PVC.

## EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective preparation and installation of the various pipe types as listed in the range of variables statement relative to the work orientation.

**(1) Critical Aspects of Evidence**

It is essential that competence is observed in the following aspects:

- compliance with Occupational Health and Safety regulations and State/Territory legislation applicable to work place operations
- compliance with organisational policies and procedures including Quality Assurance requirements
- correct procedures during construction
- safe and effective operational use of tools, plant and equipment and communications to undertake safe pipelaying

**(2) Pre-requisite Relationship of Units**

This unit of competency is dependant upon acquiring the relevant pre-requisite competencies in basic industry and basic stream skills.

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## (3) Underpinning Knowledge and Skills

Knowledge

A knowledge of:

- workplace and equipment safety requirements including relevant legislation regulations and codes.
- competence equipment.
- hand tools and equipment.
- materials and handling methods.
- measurements
- levelling
- hand signals
- Quality Assurance
- workplace communication

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle material
- select material
- measure
- level
- apply Quality Assurance
- communicate effectively

## (4) Resource Implications

The following resources should be made available:

- general construction materials relevant to civil construction works
- hand and power tools, plant and equipment appropriate to the civil construction process
- suitable work area appropriate to the civil construction process
- suitable plan/specifications relevant to the work orientation

## (5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon project work.

Competency shall be assessed while work is undertaken under general guidance, checking at various stages of the process and at the completion of the activity against the performance criteria and specifications.

## (6) Context of Assessment

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be intermittent checking at various stages of the job application with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, enterprise specific policies and procedures and codes of practice.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCC2006A Erect/dismantle fencing and gates

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Plan and prepare work | 1.1 | OH&S requirements adhered to. |
| | | 1.2 | Quality Assurance requirements recognised and adhered to. |
| | | 1.3 | Location of fencing and gates determined from site plans. |
| | | 1.4 | Materials and quantities determined from site drawings and specifications. |
| | | 1.5 | Personal protective equipment selected, correctly fitted and used. |
| | | 1.6 | Tools and equipment selected consistent with requirements of job. |
| 2 | Erect fence | 2.1 | Fence line and post hole position set out to requirements of site plans and specifications. |
| | | 2.2 | Post holes excavated to specifications. |
| | | 2.3 | Fence posts erected in place, plumb and to alignment in accordance with specifications. |
| | | 2.4 | Fence rails and cladding or mesh fixed to posts to specifications. |
| 3 | Erect gates and signage | 3.1 | Gates fitted and secured to requirements of site drawings and specifications. |
| | | 3.2 | Signage installed at entry gates in accordance with site OH&S and security requirements. |
| 4 | Maintain fencing and gates | 4.1 | Fencing and gates maintained to completed construction condition. |

| | | | |
|---|---|---|---|
| 5 | Remove and make good | 5.1 | Gates and fencing dismantled and removed from site where required. |
| | | 5.2 | Area made good to specification. |
| 6 | Clean up | 6.1 | Tools and equipment cleaned, maintained and stored. |
| | | 6.2 | Waste and unwanted material cleared and removed from site. |
| | | 6.3 | Tools and equipment cleaned, maintained and stored. |

## RANGE OF VARIABLES

This unit applies to all types of fencing construction including timber, concrete and metal posts as well as timber and metal railing. Fencing can be closed with timber cladding or sheet material, or can be open with wire or cyclone mesh.

## EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective preparation and erection of two (2) separate types of fencing listed in the range of variables statement relative to the work orientation.

**(1) Critical Aspects of Evidence**

It is essential that competence is observed in the following aspects:

- compliance with Occupational Health and Safety regulations and State/territory legislation applicable to work place operations
- compliance with organisational policies and procedures including Occupational Health and Safety regulations including State/Territory legislation applicable to work place operations
- Compliance with organisational policies and procedures including Quality Assurance requirements
- Correct procedures during construction
- Safe and effective operational use of tools, plant and equipment and communications to enable appropriate erecting/dismantling of fencing and gates.

**(2) Pre-requisite Relationship of Units**

This unit of competency is dependant upon acquiring the relevant pre-requisite competencies in basic industry and basic stream skills.

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**(3) Underpinning Knowledge and Skills**

## Knowledge

A knowledge of:

- workplace and equipment safety requirements
- measurements
- hand tools and equipment
- materials and handling methods
- Quality Assurance
- workplace communication

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle material
- select material
- apply Quality Assurance
- communicate effectively

**(4) Resource Implications**

The following resources should be made available:

- general construction materials relevant to the work orientation
- hand and power tools plant and equipment appropriate to the civil construction process
- suitable work area appropriate to the construction activity

**(5) Method of Assessment**

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon project work.

Competency shall be assessed while work is undertaken under general guidance, checking at various stages of the process and at the completion of the activity against the performance criteria and specifications.

**(6) Context of Assessment**

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be intermittent checking at various stages of the job application with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, enterprise specific policies and procedures and codes of practice.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCG1008A Use simple levelling devices

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Plan and prepare work | 1.1 | OH&S requirements in accordance with application tasks and workplace environment, recognised and adhered to. |
| | | 1.2 | Requirements of job identified from drawings or instructions. |
| | | 1.3 | Appropriate personal protective equipment selected, correctly fitted and used. |
| | | 1.4 | Tools and equipment selected consistent with job requirements, checked for serviceability and faults reported to supervisor. |
| | | 1.5 | Quality Assurance requirements recognised and adhered to in accordance with company's construction operations. |
| 2 | Set up and use levelling device | 2.1 | Heights to be transferred are identified from given instructions or drawings. |
| | | 2.2 | Water level assembled and filled with water to required level with air bubbles removed. |
| | | 2.3 | Height transferred to required locations to a tolerance of + or - 5mm over 3 metres. |
| 3 | Transfer heights with straight edge and spirit level | 3.1 | Heights to be transferred are identified from given instructions/drawings marked level. |
| | | 3.2 | Height transferred to required location to + or - 5mm over 3 metres. |
| 4 | Maintain given level or specified slope with boning rods | 4.1 | Heights of each end of line to be boned are established to given levels. |

| | | | |
|---|---|---|---|
| | | 4.2 | End of boning rods are securely fixed to required heights. |
| | | 4.3 | Heights of intermediate points are sighted and marked with boning rods to a tolerance of + 10mm. |
| 5 | Clean up | 5.1 | Tools and equipment cleaned, maintained and stored. |

## RANGE OF VARIABLES

This unit applies to the use of simple levelling devices to carry out basic exercises in transferring levels or maintaining a line of a slope.

Levelling and lining devices include:

- Water level
- Spirit level
- Boning rods

Heights or levels may be given by:

- Drawing/sketch indicating mark
- Verbal or written instruction indicating level or mark
- Datum/survey peg fixed into ground
- Chalk or nail mark on paved/concrete surface
- Mark on vertical surface

Associated tools and equipment include:

- String line
- Wooden/steel pegs
- Straight edge
- Hammer
- Chalk line

Personal Protective equipment may include:

- Overalls
- Boots
- Hard hat/cap
- Safety glasses
- Dust jacket
- Masks/respirators

Work carried out under supervision and in a team situation or individually.

Reporting of faults may be verbal or written.

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## EVIDENCE GUIDE

Competency is to be demonstrated by the performance of carrying out the effective application of the different types of levelling devices listed within the range of variables statement relative to the work orientation.

### (1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- correct procedures carried out prior to and during the application of levelling and boning processes
- demonstrate safe and effective handling and operational use of levelling device
- indicate care in accurately transferring levels to other locations
- interactive communication with others to ensure safe and effective levelling operations.

### (2) Pre-requisite Relationship of Units

Nil

### (3) Underpinning Knowledge and Skills

Knowledge
A knowledge of:

- workplace and equipment safety requirements
- hand tools
- measurement and calculation
- quality assurance
- range of levelling devices
- horizontal/vertical concepts

Skills
The ability to:

- work safely to instructions
- measure
- use hand tools
- communicate effectively

### (4) Resource Implications

The following resources should be made available:

- general construction materials appropriate to levelling
- hand tools appropriate to the levelling and lining processes
- equipment appropriate to the activity processes

- suitable work area appropriate to the activities
- suitable plans/drawings and specification

## (5) Method of Assessment

Competency shall be assessed while work is undertaken under direct supervision with regular checks, but may take the form of some autonomy when working as part of a team.

Competency in this unit should be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

## (6) Context of Assessment

Competency shall be assessed in the workplace or simulated workplace environment and in accordance with work practices and safety procedures.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# BCG1011A Handle construction materials and safe disposal of waste

| ELEMENT OF COMPETENCY | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 1 | Plan and prepare work | 1.1 | OH&S requirements associated with application tasks and workplace environment recognised and adhered to. |
| | | 1.2 | Appropriate personal protective equipment selected, correctly fitted and used. |
| | | 1.3 | Quality Assurance requirements associated with company's construction operations recognised and adhered to. |
| | | 1.4 | Tools and equipment for handling materials/goods and non-toxic waste selected consistent with job requirements, checked for serviceability and any faults reported to supervisor. |
| 2 | Correctly manual handle, sort and stack construction material | 2.1 | Common construction materials recognised and selected for sorting and stacking/stockpiling to supervisor's instructions and/or specifications. |
| | | 2.2 | Handling characteristics of materials identified and appropriate handling techniques applied. |
| | | 2.3 | Specific handling requirement applied for hazardous materials. |
| | | 2.4 | Materials stored, stacked/stockpiled and protected, clear of trafficways, so that they are easily identified, retrieved and not damaged. |
| | | 2.5 | Appropriate signage and barricades erected where applicable to isolate stored materials from workplace traffic or access. |

| | | | |
|---|---|---|---|
| | | 2.6 | Correct manual handling techniques used. |
| 3 | Prepare for mechanical handling of materials | 3.1 | Materials stacked/banded for mechanical handling in accordance with type of material and plant/equipment to be used. |
| | | 3.2 | Dogman/rigger assisted with loading, unloading, moving, locating and/or installing materials. |
| | | 3.3 | Materials safely handled with assistance of pallet trolley, forklift or hoist. |
| 4 | Handle and remove waste safely | 4.1 | Waste materials handled correctly and safely according to MSDS and requirements of regulatory authorities. |
| | | 4.2 | Hazardous material identified for separate handling. |
| | | 4.3 | Non-toxic materials removed using correct procedures. |
| | | 4.4 | Dust suppression procedures used to minimise health risk to work personnel and others. |
| 5 | Clean up | 5.1 | Tools and equipment cleaned, maintained, and stored. |
| | | 5.2 | Unused materials safely stacked/stockpiled stored. |
| | | 5.3 | Waste materials disposed of safely. |
| | | 5.4 | Site cleaned and cleared of debris and unwanted material. |

## RANGE OF VARIABLES

Tools and equipment to include but are not limited to:

- brooms
- hoses
- shovels

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- rakes
- wet and dry industrial vacuum cleaners
- wheelbarrows
- pallet trolley
- materials hoists
- forklifts

Construction materials include but are not limited to:

- bricks and concrete masonry
- mortar components – cement, coarse aggregate, sand
- timber
- structural steel sections/components
- concrete
- scaffolding components, pipe sections
- plywood and particle board
- metal sheeting
- steel reinforcement
- insulation
- glass
- paints and sealants
- plaster sheeting

Protection of stacked/stored materials may include:

- covering
- tying or banding
- barricades
- signs
- locked away (hazardous materials)

Dust suppression procedures may include:

- spraying with water
- covering
- use of vacuum cleaner

Waste material and debris include but are not limited to:

- banding straps
- packing pieces
- broken or damaged goods
- cardboard
- plastic
- paper
- loose material

Removal of materials to include processes of recycling and salvaging where applicable.

OH&S requirements to be in accordance with State/Territory legislation and regulations.

Work to be undertaken as part of a team or individually under supervision of appropriately certificated persons where applicable.

Reporting of faults may be verbal or written.

## EVIDENCE GUIDE

Competency is to be demonstrated by the performance of effectively handling and storing/stacking appropriate construction materials listed within the range statement, relative to the work orientation.

### (1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations and State legislation applicable to work place operations
- indicate compliance with organisational policies and procedures including quality assurance requirements
- correct procedures carried out prior to and during the application of materials handling processes
- demonstrate safe and effective operational use of tools and equipment
- demonstrate safe application in the process of cleaning up
- interactive communication with others to ensure safe and effective operations.

### (2) Pre-requisite Relationship of Units

Nil

### (3) Underpinning Knowledge and Skills

Knowledge
A knowledge of:

- workplace and equipment safety requirements including relevant codes and regulation
- hand tools and equipment
- materials
- materials handling
- Quality Assurance
- a range of communication mediums (verbal and non-verbal)

Skills
The ability to:

- work safely to instructions
- use hand tools
- handle materials
- select material
- measure
- communicate effectively

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### (4) Resource Implications

The following resources should be made available:

- general construction materials relative to construction processes
- plant and equipment appropriate to the handling processes
- hand tools appropriate to the handling processes
- suitable work area appropriate to the construction process
- MSDS information

### (5) Method of Assessment

Competency shall be assessed while work is undertaken under direct supervision with regular checks, but may take the form of some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

### (6) Context of Assessment

Competency shall be assessed in the workplace or simulated workplace environment and in accordance with work practices and safety procedures.

## KEY COMPETENCIES

| Collecting, analysing and organising ideas and information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Solving problems | Using mathematical ideas and techniques | Using technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

# CHCCD4C Develop and implement community programs

**Unit Descriptor**

Developing community programs to ensure maximum participation.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1. Develop program parameters | 1.1 Issues of wide community concern are analysed to develop an agency position and to ascertain the need for new program (s) |
| | 1.2 Appropriate work is undertaken to ascertain support, capacity for a coordinated effort and factors which will effect provision of services |
| | 1.3 Research is undertaken to identify key propel, issues to be addressed, possible strategies and options for action |
| | 1.4 Appropriate planning and liaison is undertaken including developing concept plans in consultation with relevant communities and stakeholders |
| 2. Design programs with the community | 2.1 A program plan is developed which reflects identified parameters and incorporates an evaluation of a range of program options |
| | 2.2 Consultation is undertaken to determine preferred program options particularly in areas of high need or with targeted communities |
| | 2.3 Help from participating agencies is sought for implementation arrangements |
| | 2.4 Resources are identified and sought |
| 3. Implement programs | 3.1 Where appropriate, pilots are conducted, evaluated and adjustments are made to ensure the program achieves its objectives |
| | 3.2 Programs are implemented in accordance with the development plan |
| | 3.3 Promotion and marketing strategies are developed and implemented |
| | 3.4 Systems and resources for administrative support of community programs are developed and maintained |
| | 3.5 Target group is encouraged to participate fully in the program |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 4. Evaluate programs | 4.1 Program design and outcomes are evaluated according to criteria and specifications identified in the program plan<br>4.2 Results of evaluation are used for revision and ongoing development<br>4.3 Interested and/or relevant people are involved in program evaluation |

**RANGE STATEMENT**

| | |
|---|---|
| *Community may be:* | • Individuals and groups defined by organisational programs and services<br>• Other agencies providing services to the designated individuals and groups<br>• People with specified needs and interests<br>• People using the organisation's services/programs<br>• Geographic |
| *Community programs may include:* | • Community development activities and strategies<br>• Education and information projects |
| *Stakeholders may include:* | • Residents within a community<br>• Businesses within or related to a community<br>• Advocacy and special interest groups<br>• Decision makers and community leaders<br>• Individuals, groups and communities affected by issues or strategies<br>• Owners or managers of resources required<br>• Grants/funding agencies<br>• Government and non government organisations<br>• Peak bodies<br>• Colleagues and collaborators |
| *Implementation strategies may include:* | • Community/public education, awareness raising<br>• Lobbying and advocacy<br>• Development of new services, opportunities<br>• Developing the capacity of individuals, groups and communities to meet their own needs and objectives |

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| | • Non violent direct action<br>• Participatory action research<br>• Development of new businesses or employment opportunities<br>• Health promotion, development of healthy communities/attitudes and environmental causes of ill health<br>• Development of community resources and facilities<br>• Development of recreational/entertainment<br>• Adjustments to existing programs/services to make them more accessible to young people<br>• Strategies to increase access to facilities, services<br>• Decision making including cost, physical, information<br>• Public processes |
| *Resources may include:* | • Information<br>• Knowledge/skills<br>• Equipment and materials<br>• Facilities, buildings, transport<br>• Organisational structures, networks<br>• Sector/regional networks<br>• Access to decision makers<br>• Management support<br>• Personnel<br>• Money |
| *Evaluation of program options may include:* | • Projected outcomes to achieve objectives<br>• Cost efficiency and effectiveness<br>• Relevance to high needs and priorities<br>• Scope and coverage<br>• Capacity to evaluate<br>• Availability of resources/skills<br>• Consistency of philosophy<br>• Ethical considerations<br>• Impact on organisation/other services/programs<br>• Personnel/industrial/employment implications<br>• Legislative/statutory/accountability implications |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| *Promotion and marketing strategies may include:* | • Letters (by FAX, mail, or any other means of transmission)<br>• Newsletters/journals<br>• Internal organisation communication (eg. Internal memos, minutes of meetings)<br>• Artwork, graphics<br>• Reports, discussion papers, briefing papers<br>• Brochures, fliers and written advertisements<br>• Posters<br>• Audio and audio visual productions<br>• Performing arts presentations<br>• Verbal/public presentations<br>• Meetings, seminars, workshops and forums<br>• Print or telecommunications media |
| *Consultation strategies may include:* | • Meetings, seminars, workshops or other forums<br>• Interviews (formal and informal)<br>• Written surveys (questionnaires, letters, submissions)<br>• Suggestion boxes<br>• Alternative communication such as graffiti walls<br>• Networks<br>• Professional associations<br>• Call for submissions |

## EVIDENCE GUIDE

*Critical aspects of assessment:* Effective management of community programs through the application of current accepted best practice

*Essential knowledge:*

- The cultures, concerns, beliefs and aspirations of the community in question
- The impact of cultural or community attitudes on appropriate roles, relationships and approaches of the worker
- The impact of cultural and community attitudes within that community
- The implications of differences in attitudes and values
- Community development as a social change strategy
- Decision making structures and processes at organisation, community, regional and system level
- Relevant legislation and public policies
- Social, community and youth issues
- Nature of Community Development work
- Definitions of community
- 'Community' as ideological tool
- Personal values and community development
- Emergence of community development
- Contemporary community development practice
- Social movements
- Sociology
- Social theories
- Social inequality
- Sociology of class
- Sociology of gender

*Essential skills:*

- Research and consultation
- Application of a range of community development approaches
- Coordination of people, processes and information
- Analysis of data, information and relationships
- Advocacy
- Provision of support to a diverse range of people/organisations
- Conflict resolution/negotiation and mediation

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## EVIDENCE GUIDE

| | |
|---|---|
| | • Cross cultural communication and negotiation<br>• Verbal and written communication<br>• Analysis of complex issues<br>• Literacy adequate to prepare a range of resource material appropriate to the target group<br>• Working with and through community leaders |
| *Resource implications:* | Access to an appropriate workplace or an environment that effectively simulates workplace and community conditions |
| *Consistency in performance:* | Consistency in performance should consider specific program and community requirements |
| *Context of assessment:* | This unit can be assessed in the community or in a simulation which related closely to the experience of the workplace and the community |

# FDFCORQAS1A Follow work procedures to maintain quality

**Unit descriptor**

This is a Core unit. It covers the skills and knowledge required to follow basic quality assurance practices related to monitoring quality where work involves routine manual processes and/or operation of simple automated equipment.

Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPHGMP1A Follow work procedures to maintain Good Manufacturing Practice.

| Element | Performance criteria |
|---|---|
| 1. Monitor quality of work outcome | 1.1 Quality requirements are identified |
| | 1.2 Inputs are inspected to confirm capability to meet quality requirements |
| | 1.3 Work is conducted and monitored to produce required outcomes |
| 2. Identify and report unacceptable inputs and/or outputs | 2.1 Work area, materials, processes and product are routinely checked to ensure compliance with quality requirements |
| | 2.2 Unacceptable quality is identified and corrective action is taken within the level of responsibility to maintain quality standards |
| | 2.3 Quality variation is reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out in accordance with company policies and procedures, licensing and regulatory requirements, legislative requirements and industrial awards and agreements
- Workplace information may include Standard Operating Procedures (SOPs), quality specifications, food safety and/or GMP programs, log sheets standard forms and written or verbal instruction
- Responsibility for monitoring quality relates to immediate work responsibilities and may require visual inspections and checks
- Monitoring typically involves visual inspection or checks at control points Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) control points

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– At this level, responding to out-of-specification or unacceptable outcomes typically involves exercising judgment within clearly defined parameters and reporting/referring to others

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access and apply workplace information on quality requirements for own work
2. Identify control points or inspection points for own work and related methods used to monitor quality
3. Carry out relevant checks and inspections as required. This may include checks, and inspections on equipment, materials, product, packaging consumables and processing conditions relevant to own work
4. Identify and respond to out-of-specification or unacceptable inputs and/or outputs. This may include making adjustments within level of responsibility and/or reporting
5. Maintain quality of own work
6. May include ability to:
7. Conduct tests related to work responsibilities
8. Record quality data in required format

**Knowledge of:**

9. Quality policy, procedures and responsibilities
10. Quality personnel and their respective responsibilities. This can include internal personnel and external auditors
11. Requirements of internal and external customers
12. Sources of advice on quality requirements for own work
13. Control points for own work. This includes an understanding of the purpose of the control point, the risk if not controlled and the method of control where relevant
14. Monitoring, inspection and checking procedures relating to process control requirements
15. Evidence of out-of-standard or unacceptable performance
16. Procedures for responding to out-of-specification or unacceptable performance/outcomes
17. Responsibilities for reporting and recording quality information
18. May include knowledge of:
19. Sampling and test procedures
20. Recording requirements and responsibilities

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with other units of competence relevant to the work role. This may include:

– FDFCORFSY1A Follow work procedures to maintain food safety

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Quality policy, system and procedures. This includes company codes of practice/Good Manufacturing Practice (GMP)

– Work tasks and responsibilities

– Workplace information relating to work tasks. This may include specifications, work instruction and other advice on quality requirements and procedures

– Systems for recording quality information as required

– Reporting system and procedures

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFCORQAS2A Implement quality systems and procedures

**Unit descriptor**

This is a Core unit. It covers the skills and knowledge required to apply quality principles and system requirements when carrying out work responsibilities where work involves the operation of packaging and/or processing equipment.

Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPHGMP2A Implement Good Manufacturing Practice procedures.

| Element | Performance criteria |
|---|---|
| 1. Monitor quality of work outcome | 1.1 Quality requirements are identified |
| | 1.2 Inputs are inspected to confirm capability to meet quality requirements |
| | 1.3 Work is conducted to produce required outcomes |
| | 1.4 Work processes are monitored to confirm quality of output and/or service |
| | 1.5 Processes are adjusted to maintain outputs within specification |
| 2. Participate in maintaining and improving quality at work | 2.1 Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements |
| | 2.2 Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements |
| | 2.3 Corrective action is taken within level of responsibility, to maintain quality standards |
| | 2.4 Quality issues are raised with designated personnel |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out in accordance with company policies and procedures, licensing and regulatory requirements, legislative requirements and industrial awards and agreements

– Workplace information may include Standard Operating Procedures (SOPs), quality specifications, food safety plans, log sheets standard forms and reports

– Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) as well as quality and regulatory control points

– Monitoring quality includes observation and other checks, tests or inspections to confirm that the work output meets defined specifications or quality standards. This can include the use of data collection and analysis tools such as control charts. Tests or inspections may be carried out by the operator, a third party or automated

– Reporting and recording systems may be verbal, written, electronic or screen-based

– Participating in improvement may involve participation in structured improvement programs, one-off projects and day-to-day problem solving

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access and apply workplace information on quality requirements for own work
2. Identify control points or inspection points for own work and related methods used to monitor quality
3. Maintain quality of own work. This may require carrying out relevant checks and inspections in order to monitor control points and check and inspect equipment, materials, product, packaging consumables, processing conditions and service standards relevant to own work
4. Identify and correct variation within boundaries of work role. This may require the use of quality data
5. Determine when and how to make adjustments to maintain output within specified parameters
6. Identify and respond to out-of-specification or unacceptable inputs and/or outputs
7. Record quality data in required format

*May include ability to:*

8. Conduct tests related to work responsibilities
9. Collect samples as required by sampling regime where applicable

**Knowledge of:**

10. Quality policy, procedures and responsibilities
11. Quality system used in the workplace. This includes an understanding of the relationship between the quality system and food safety program, sources of information on quality requirements, the role of internal and external auditors as appropriate and performance improvement processes
12. Basic concepts of quality assurance including hazards, risk assessment and control methods
13. Requirements of internal and external customers

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14. Control points for own work. This includes an understanding of the purpose of the control point, the risk if not controlled and the method of control used
15. Monitoring, testing and inspection procedures relating to process control requirements
16. Scope to correct/control variation within equipment and process capacity parameters
17. Evidence of out-of-standard or unacceptable performance
18. Procedures for responding to out-of-specification or unacceptable performance/outcomes. This includes procedures for identifying or isolating materials or product of unacceptable quality
19. Systems used to trace product ingredients as relevant to own work
20. Requirements to report and record quality information

*May include knowledge of:*

21. Sampling and test methods and procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFCORFSY2A Implement the food safety program and procedures
– FDFOPTISP2A Implement sampling procedures
– PMLTEST300A Perform basic tests

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Quality policy, system and procedures. This includes company codes of practice/Good Manufacturing Practice (GMP)
– Work tasks and responsibilities
– Workplace information relating to work tasks. This may include specifications, work instruction and other advice on quality requirements and procedures
– Sampling and test procedures and related equipment as required
– Systems for recording quality information

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFCORFSY2A Implement the food safety program and procedures

**Unit descriptor**

This is a Core unit. It covers the skills and knowledge required to maintain personal hygiene and conduct, food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.

This unit is based on and equivalent to the guideline food safety unit GFSMFSRA Apply and monitor food safety requirements.

Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPHGMP2A Implement Good Manufacturing Practice procedures.

| Element | Performance criteria |
|---|---|
| 1. Implement the food safety program | 1.1 Food handling requirements are identified |
| | 1.2 Food handling is carried out according to the food safety program |
| | 1.3 Food safety hazards are controlled as required by the food safety program |
| | 1.4 Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken |
| | 1.5 Food safety information is recorded to meet requirements of the food safety program |
| | 1.6 The workplace is maintained in a clean and tidy order to meet workplace standards |
| 2. Participate in maintaining and improving food safety | 2.1 Work area, materials, equipment and product are routinely monitored to ensure compliance with food safety requirements |
| | 2.2 Processes, practices or conditions which could result in a food safety breach are identified and reported according to workplace reporting requirements |
| | 2.3 Corrective action is taken in accordance with the food safety program |
| | 2.4 Food safety issues are raised with designated personnel |

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| | |
|---|---|
| 3. Comply with personal hygiene standards | 3.1 Personal hygiene meets the requirements of the food safety program |
| | 3.2 Health conditions and/or illness are reported as required by the food safety program |
| | 3.3 Clothing and footwear worn is appropriate for the food handling task and meets the requirements of the food safety program |
| | 3.4 Movement around the workplace complies with food safety program |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the Food Safety Standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
- Workplace information may be provided in a food safety program and/or in Standard Operating Procedures (SOPs), specifications, log sheets and written or verbal instruction
- Workplace information may include Standard Operating Procedures (SOPs), specifications, food safety plans, log sheets standard forms and reports
- Food handling refers to food receipt and storage, food preparation, cooking, holding, cooling, chilling and reheating, packaging, and disposal
- Products/materials handled and stored can include raw materials, ingredients, consumables, part-processed product, finished product and cleaning materials
- Examples of a breach of food safety procedures could include failure to check delivery temperatures of potentially hazardous, chilled food, failure to place temperature-sensitive food in temperature controlled storage conditions promptly, failure to wash hands when required and use of cloths for unsuitable purposes
- Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace
- Monitoring describes the methods used to confirm that a food safety hazard is in control. Examples of monitoring procedures include taking temperatures, collecting samples, conducting visual inspections and conducting other tests as required
- A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect

– Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state legislation/regulations

– Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state legislation/regulations

– Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself, does not contaminate food or surfaces likely to come into contact with food. Examples of clothing designed to prevent contamination by the body include purpose designed overalls or uniforms, hair-nets, beard snoods, gloves and overshoes

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Locate and follow workplace information relating to food safety responsibilities
2. Follow workplace procedures to maintain food safety as required by the food safety program relating to own work
3. Monitor food safety hazards as required by the food safety program. This may include methods such as visual inspection, sampling and testing
4. Record results of monitoring and maintain records as required by the food safety program
5. Identify and report situations that do not meet the requirements of the food safety program and/or could result in unsafe food
6. Take corrective action as required by food safety program within level of responsibility
7. Handle, clean and store equipment, utensils, packaging materials and similar items according to the requirements of the food safety program as required by work role
8. Maintain personal hygiene consistent with the food safety program
9. Take necessary precautions when moving around the workplace and/or from one task to another to maintain food safety
10. Wear and maintain appropriate clothing / footwear as required by work tasks and consistent with the requirements of the food safety program
11. Report health conditions and illness as appropriate according to the food safety program
12. Handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility
13. Maintain the work area in a clean and tidy state
14. Identify and report signs of pest infestation

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15. Record food safety information in appropriate format

*May include ability to:*

16. Clean and sanitise equipment

17. Collect samples and conduct tests according to the food safety program

18. Participate in investigating food safety breaches

**Knowledge of:**

19. Sources of information and expertise on procedures and responsibilities for food safety relating to own work

20. Basic concepts of HACCP-based food safety. This includes identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met

21. Food safety management arrangements in the workplace. This includes awareness of food safety legislation and workplace policies and procedures to implement responsibilities. It includes an understanding of the relationship between the quality system and food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events and performance improvement processes

22. Awareness of common micro-biological, physical and chemical hazards related to the foods handled in the work area. This includes the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence

23. Basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used

24. Suitable standard for materials, measuring devices, equipment and utensils used in the work area

25. Food safety requirements related to work responsibilities. This includes personal hygiene, requirements and procedures to report illness and safe food handling practices for own work

26. Methods used to monitor that food safety is under control. This may include an understanding of the purpose of sampling and taking measurements such as temperature and pH and conducting inspections and tests

27. Action required in the event of non-compliance. Corrective action is typically described in the food safety program and/or related workplace information

28. Purpose of keeping records and the recording requirements of the food safety program

29. Methods used in the workplace to isolate or quarantine food which may be unsafe

30. Product and ingredient traceability procedures. This may include product recall where required by work responsibilities

31. Clothing and footwear requirements for working in and/or moving between food handling areas
32. Personal clothing maintenance, laundering and storage requirements
33. Appropriate bandages and dressings to be used when undertaking food handling
34. Housekeeping requirements and responsibilities relating to own work. Where relevant this includes use and storage of housekeeping/cleaning equipment
35. Procedures to follow in the event of pest sighting or discovery of infestation
36. Purpose and importance of cleaning and sanitation procedures
37. Waste collection, recycling and handling procedures relevant to own work responsibilities

*May include knowledge of:*

38. Cleaning and sanitation procedures
39. Impact of rework handling/addition on food safety
40. Sampling and test methods

**Relationship with other standards**

*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZCSCS1A Clean and sanitize equipment
– FDFOPTISP2A Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFCORQAS2A Implement quality systems and procedures

**Resources required for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

– Food safety information relating to the workplace. This includes a food safety program outlining food safety hazards and control methods. It may also include company policies, procedures and codes of practice such as Good Manufacturing Practice (GMP)
– Related work instructions and procedures
– Work tasks and responsibilities
– Appropriate clothing and related apparatus
– Reporting and monitoring systems

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– Cleaning and sanitation policies and procedures as required

– Sampling and test procedures and related equipment as required

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFCORQFS3A Monitor the implementation of quality and food safety programs

**Unit descriptor**

This is a Core competency. It covers the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the food safety/quality programs in a work area. It also involves supporting others to implement the requirements of the food safety/quality procedures. This unit applies to those with formal responsibility for others and to those required to model workplace policies and procedures but who have no formal management role.

This unit is based on and equivalent to the guideline food safety unit GFSOFSA Oversee the day-to-day implementation of food safety in the workplace.

Note that this unit does not apply to the pharmaceutical industry. Refer to FDFPHGMP3A Monitor the implementation of Good Manufacturing Practice procedures.

| Element | Performance criteria |
|---|---|
| 1. Ensure others in the work area are able to meet quality and food safety requirements | 1.1 Hazard control and clothing and equipment appropriate to work requirements is available, functional and correctly fitted<br>1.2 Information on food safety/quality responsibilities and procedures is current, accessible and communicated to others in the work area<br>1.3 Information about identified hazards and the outcomes of risk assessment and risk control procedures is accessible and communicated to others in the work area<br>1.4 Food safety/quality hazards and control measures used in the work area can be identified by those in the work area<br>1.5 Mentoring and coaching support is available to support individuals/groups to implement quality and safe food handling procedures<br>1.6 Training needs are identified and addressed within level of responsibility |

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| | |
|---|---|
| 2. Monitor observance of quality standards and food safety programs in the work area | 2.1 Work procedures in the work area are clearly defined, documented and followed |
| | 2.2 Deviation from identified procedures is identified, reported and addressed within level of responsibility |
| | 2.3 Personal behaviour is consistent with workplace policies and procedures that support food safety and quality |
| | 2.4 Food safety and/or quality hazards are identified and reported according to workplace procedure |
| | 2.5 Food safety and quality information is recorded to meet workplace reporting requirements |
| | 2.6 Housekeeping standards in the work area are maintained |
| 3. Take corrective action in response to quality and food safety non-compliance | 3.1 Workplace procedures for responding to quality and food safety non-compliance are promptly implemented |
| | 3.2 Hazardous events are investigated to identify cause |
| | 3.3 Control measures to prevent recurrence and minimise risks of hazardous events are implemented |
| 4. Maintain and improve quality and food safety in the work area | 4.1 Processes or conditions which could result in a breach of food safety procedures or quality specifications are identified, assessed, removed or and/reported within level of responsibility and according to workplace procedure |
| | 4.2 Risk assessments are conducted and appropriate control measures are identified and implemented in the work area |
| | 4.3 Recommendations arising from risk assessments are implemented within level of responsibility |
| | 4.4 Inadequacies in control measures are identified and reported according to company reporting requirements |
| | 4.5 Matters raised relating to quality/food safety are promptly resolved and/or referred to appropriate personnel |

4.6 The work group is consulted and advised of quality/food safety matters relevant to work role

4.7 Opportunities for improving food safety and quality are identified and raised with relevant personnel

4.8 Procedures are developed or revised to support effective control of quality and food safety hazards

4.9 Quality/food safety records are reviewed to ensure they are complete and meet the quality system, food safety program and legal requirements

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work responsibilities may include formal or informal responsibility for modelling appropriate quality/food safety policies and procedures and providing a support role to others in the work area
- A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the Food Safety Standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
- Quality systems may be externally accredited, such as an ISO system, or internally designed and managed
- Workplace information may be provided in food safety and quality policies and programs, Standard Operating Procedures (SOPs), specifications, log sheets and written or verbal instruction incorporating food safety and quality requirements
- A food safety incident is a situation where the safe limits or parameters identified by the food safety program are not met
- A quality incident is a situation where the quality limits or parameters identified in specifications or processing instructions are not met
- Monitoring describes the methods used to confirm that a food safety or quality hazard is in control. Examples of monitoring procedures include taking temperatures, collecting samples, conducting visual inspections and testing as required
- Responsibility for identifying breaches of food safety procedures and taking corrective action occurs in the context of the food safety program and within scope of responsibility

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- Responsibility for identifying non-compliance against quality standards occurs within the context of defined standards or specifications and relates to work area
- Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the Food Safety Standard 3.2.2, Division 4:14 and/or state legislation/regulations
- Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in Food Safety Standard 3.2.2, Division 4:13 and/or state legislation/regulations
- The operator at this level may not have direct responsibility for overseeing the training/development of team members. At a minimum they must be able to identify development needs of others in the work area and refer this information to the relevant personnel
- The operator at this level may not have responsibility for independently assessing risks and determining the effectiveness of control measures. However they would be expected to observe day-to-day effectiveness and participate in assessment and review processes
- Responsibilities at this level may include facilitating consultation processes within level of responsibility
- Record keeping complies with customer, legal and food safety program requirements

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access, interpret and communicate information about the food safety program, quality requirements and related procedures to others in the work area. This requires demonstration of two-way communication including active listening and constructive response to feedback
2. Provide access to and maintain current food safety/quality documentation
3. Model safe food handling and quality practices and procedures to achieve required outcomes. This includes demonstrating:
   - work procedures that meet the requirements of quality and food safety
   - cleaning and sanitising equipment
   - sampling and testing as appropriate according to quality and food safety requirements
   - maintaining personal hygiene
   - wearing appropriate clothing and footwear as required by the work task
   - following procedure when moving within and between work areas
   - reporting health conditions and illnesses according to workplace procedures
   - handling, cleaning and storing equipment, utensils and packaging materials as appropriate

4. Identify control points in work area and demonstrate monitoring techniques used. Control points include critical, quality and regulatory control points
5. Support others to meet quality standards and follow food safety procedures. This involves ensuring that all personnel in the work area receive the information required and have the necessary skills and equipment to carry out their responsibilities
6. Identify, report and/or address food safety/quality non-compliance in an appropriate and timely manner within level of responsibility
7. Determine when and how to make adjustments to maintain output within level of responsibility
8. Identify, report and/or address food safety/quality training and development needs of others in the work area
9. Ensure that appropriate and timely action is taken in response to non-compliance
10. Handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility
11. Participate in investigations of non-compliance and risk assessment processes
12. Participate in consultation processes to improve quality and food safety outcomes in the workplace
13. Review practice and procedures to implement recommendations arising from risk assessments and/or improvement proposals within level of responsibility. This may include collection and analysis of food safety/quality records, reviewing operating procedures and communicating changes to others in the work area
14. Ensure that housekeeping standards are maintained and that equipment is in operational order. This may include participating in the management of equipment calibration
15. Monitor the recording of quality and food safety information to confirm that records accurately reflect performance and meet the requirements of the food safety and quality programs

*May include ability to:*

16. Participate in food recall procedures as required, within level of responsibility
17. Facilitate consultation processes
18. Lead investigations of quality and food safety incidents

**Knowledge of:**

19. Sources of information and expertise on procedures and responsibilities for food safety relevant to the workplace
20. Principles of a HACCP-based approach to managing food safety. This includes identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met

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21. Basic concepts or quality assurance including hazards, risk assessment and control methods

22. Company programs and systems in place to manage and support quality and food safety in the workplace. This may involve separate or integrated programs. This includes system for maintaining and updating documents such as operating procedures and specifications. It also includes knowledge of:

    – clothing and footwear requirements for working in and/or moving between food handling areas
    – personal clothing maintenance, laundering and storage requirements
    – appropriate bandages and dressings to be used when undertaking food handling
    – housekeeping requirements and responsibilities relating to own work. Where relevant this includes use and storage of housekeeping/cleaning equipment
    – procedures to follow in the event of pest sighting or discovery of infestation
    – purpose and importance of cleaning and sanitation procedures

23. Legal obligations for food safety and quality. At a minimum, this includes an awareness of government legislation and customer requirements

24. Food safety and quality responsibilities and requirements relating to the work area

25. Awareness of common micro-biological, physical and chemical hazards related to the foods handled in the work area. This includes the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence

26. Suitable standard for materials, measuring devices, equipment and utensils used in the work area

27. Properties of food and ingredients used that affect food safety. This includes an understanding of related storage, processing and handling requirements

28. Current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents within level of responsibility. This includes an understanding of common micro-biological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes

29. Procedures for identifying unsafe and/or non-conforming product. This includes a knowledge of control points, evidence of out-of-specification product or materials and may include knowledge of sampling procedures, test methods and inspections.

30. Options for responding to non-compliance. This includes an understanding of legal responsibility, risk management and cost/implications of different responses and level of responsibility for decision making

31. Methods used in the workplace to isolate or quarantine food which may be unsafe

32. Waste collection, recycling, handling and disposal. This may include handling/disposal requirements for different types of waste such as hazardous waste where relevant

33. Traceability and recall procedures within level of responsibility

34. Documentation system and procedures. This includes record keeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures and document control systems used in the workplace
35. Auditing arrangements, roles and responsibilities as they relate to own work responsibilities. This may include an understanding of internal and external audit processes
36. Appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace

*May include knowledge of:*

37. Cleaning and sanitation procedures
38. Impact of rework handling/addition on food safety
39. Sampling and test methods
40. Facilitation and consultation techniques

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisites for this unit

*Co-assessment of related units*

This unit should be assessed together with other units of competence relevant to the function or work role. In addition, the following optional or ancillary unit may be relevant:

- FDFOPTPIP3A Participate in improvement processes
- FDFOPTTG3A Lead work teams and groups
- BSBCMN405A Analyse and present research information

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Food safety program for the work area identifying critical control points, control measures and corrective action
- Quality policy, system and procedures
- Work area or system in which quality and food safety practices and procedures are to be monitored
- Personal protective clothing and equipment as required
- Review / audit arrangements
- Reporting and monitoring systems

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**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFOPTCRM2A Conduct routine maintenance

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to inspect equipment and carry out routine maintenance and/or adjustment using a limited range of hand tools.

| Element | Performance criteria |
|---|---|
| 1. Conduct routine inspection of plant and equipment | 1.1 Equipment is inspected to identify signs of wear |
| | 1.2 Nature of maintenance requirement is assessed |
| 2. Prepare to conduct routine maintenance | 2.1 Maintenance task is assessed to determine tools and services required |
| | 2.2 Equipment is prepared for maintenance |
| | 2.3 Hand tools are selected according to task requirements |
| | 2.4 Tools are checked before use and unsafe and/or faulty items are reported within standard procedures |
| | 2.5 Maintenance is planned and scheduled in consultation with affected work areas to minimise disruption to production |
| 3. Carry out routine maintenance | 3.1 Routine maintenance on equipment is carried out according to workplace procedures |
| | 3.2 Maintenance activities are reported according to workplace reporting requirements |
| 4. Complete maintenance tasks | 4.1 Equipment is returned to operating order |
| | 4.2 Tools and materials are stored according to workplace procedure |
| | 4.3 Relevant personnel are notified of maintenance completion |
| | 4.4 Housekeeping standards are maintained |

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## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Routine maintenance is carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production log books, routine maintenance schedules, manufacturer's advice and condition monitoring information
- When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP
- Typical routine maintenance tasks will depend on the workplace and may include replacement of consumable components such as O-rings, hoses, filters and other 'bolt-on/bolt off' equipment parts, lubrication of equipment and maintenance of fluid levels, simple adjustment, alignment or attachment of equipment components, parts, guides and sensors, clearing blocked nozzles such as glue nozzles, positioning/attaching equipment components and carrying out basic maintenance on video inkjet machines
- Tools and materials depend on the maintenance function and may include a limited range of hand tools such as spanners and screw drivers, grease guns, allen keys and measuring and alignment equipment. Materials may include lubricants and consumables for video inkjet printers
- Inspections of equipment may be carried out informally or as part of a structured program associated with proactive maintenance

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information such as the equipment history, faults or difficulties
2. Select, fit and use personal protective clothing and/or equipment
3. Inspect equipment for signs of wear. Examples of typical sensory inspections include visual inspections to detect leaks, listening for unusual noises and or vibrations
4. Identify and describe maintenance requirements. This includes the ability to assess the urgency of the maintenance issue, recognize common types of maintenance requirements and run basic checks according to workplace procedures to confirm the need for and type of maintenance support required
5. Take action to address maintenance requirements. This may include carrying out routine maintenance within level of skill and responsibility and/or reporting outstanding maintenance to appropriate personnel using the required forms or request system

6. Plan and schedule maintenance within level of responsibility. This may involve consulting affected personnel and/or work areas on timing and notifying of maintenance progress
7. Prepare equipment and work area for routine maintenance. This includes cleaning equipment prior to carrying out maintenance and confirming that equipment is safe to work on. This includes simple isolation or tag out of equipment as required by workplace procedure
8. Select and use hand tools as required to carry out maintenance task
9. Select relevant parts and materials as required to carry out maintenance task
10. Carry out routine maintenance tasks according to workplace procedures
11. On completion of maintenance tasks, return equipment to operational order. This includes confirming that all equipment parts, nuts and bolts are accounted for and correctly tightened. It may include cleaning and sanitizing equipment
12. Store tools in designated location. This may include basic tool maintenance such as oiling
13. Complete records of maintenance as required
14. Maintain work area to meet housekeeping standards

**Knowledge of:**

15. System in place to manage maintenance of plant and equipment in the workplace. This includes an understanding of programs such as and responsive, preventative and proactive maintenance as appropriate
16. Responsibilities for participating in the maintenance program. This includes scope of operator responsibilities, roles of others involved in plant and equipment maintenance and procedures for raising maintenance orders where requirements are outside operator role
17. Basic operating principles of equipment to be maintained
18. Signs and symptoms of faulty equipment and early warning signs of potential problems
19. Basic checks used to confirm the nature of maintenance requirements. This includes distinguishing between mechanical and electrical faults and identifying probable causes or conditions that may increase maintenance requirements of equipment used
20. Procedure for issuing, maintaining and storing tools used
21. Safe use of hand tools and measuring instrumentation relevant to maintenance responsibilities
22. Lubrication requirements. This includes requirements to use food grade lubricants as required and consequences of using incorrect type or amount of lubricants
23. Safe work procedures including appropriate signage of maintenance activities as required, use of appropriate personal protective clothing and equipment and awareness of safety hazards and controls relating to maintenance tasks

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24. Methods used to render equipment safe to work on or clean including lock-out, tag-out and isolation procedures. In some cases this may involve liaising with other maintenance operators
25. Procedures and inspections to be carried out to confirm that equipment is in operating order and all parts are accounted for
26. Food safety risks arising from poor personal hygiene, cleaning and housekeeping practices and procedures associated with routine maintenance
27. Maintenance planning, scheduling and recording procedures

**Relationship with other standards**

*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role.

**Resources required for assessment**

- Assessment must occur in a real or simulated workplace where the assessee has access to:
- Personal protective clothing and equipment
- Tools, equipment and supplies used in minor routine preventative maintenance
- Routine maintenance and lubrication schedules and procedures
- Equipment to be maintained
- Housekeeping standards and procedures
- Maintenance information recording system and procedures

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFOPTENV2A Implement environmental policies and procedures

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to implement environmental policies and procedures when carrying out work responsibilities.

This unit is based on BSBCMN215A Participate in environmental work practices.

| Element | Performance criteria |
|---|---|
| 1. Conduct work in accordance with environmental policies and procedures | 1.1 Immediate work area is routinely checked to ensure compliance with environmental requirements |
| | 1.2 Hazards and unacceptable performance are identified, removed and/or reported to appropriate personnel according to workplace procedures |
| | 1.3 Workplace procedures and work instructions are followed |
| | 1.4 Where control requirements are not met, incidents are promptly reported and corrective action is taken |
| | 1.5 Measures used to minimise and handle waste are followed |
| | 1.6 Environmental data is recorded in required format according to workplace reporting requirements |
| 2. Participate in improving environmental practices at work | 2.1 Processes or conditions which could result in an unacceptable environmental outcome are identified and reported according to workplace reporting requirements |
| | 2.2 Corrective action is taken in accordance with the environmental management and emergency response plans as required |
| | 2.3 Contributions are made to participative arrangements for managing environmental issues in the workplace within workplace procedures and level of responsibility |

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| | |
|---|---|
| 3. Respond to an environmental emergency | 3.1 Emergency situations are identified and reported according to workplace reporting requirements |
| | 3.2 Emergency procedures are followed as appropriate to the nature of the emergency and according to workplace procedures |

## Range statement

- The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.
- Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements, site licences and industrial awards and agreements. When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, signs and symbols, Materials Safety Data Sheets (MSDSs), manufacturers' advice, standard forms and reports
- Procedures are available that outline appropriate response to environmental incidents, accidents and emergencies
- At this level identification and control of environmental hazards relates to own work. Corrective action typically involves recognising any event which occurs as part of the work process and presents an unacceptable environmental risk or outcome, taking corrective action within level of responsibility and/or reporting to the appropriate person in the work area
- Work responsibilities may involve handling of hazardous waste
- An environmental hazard is any activity, product or service which has the potential to affect the environment. This may also be referred to as an environmental aspect.
- An environmental risk is the likelihood that the hazard can cause harm to the environment
- A control measure is a method or procedure used to prevent or minimise environmental risks
- Responsibility for identifying and controlling environmental risks relate to immediate work responsibilities
- Participating in improvement may involve participation in structured improvement programs, one-off projects and day-to-day problem solving and consultative groups

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access and apply workplace information on environmental policies and procedures relating to own work
2. Fit and use appropriate personal protective clothing and equipment
3. Check own work area to identify environmental hazards
4. Report hazards according to workplace procedure in a clear and timely manner
5. Follow work procedures to control or minimise environmental risk. This may include monitoring parameters set for environmental aspects such as airborne particulates, noise, water quality. It may also include demonstrating use of emergency equipment according to work role requirements
6. Record environmental information as required by the environmental management program
7. Participate in processes to raise issues and suggestions to improve environmental issues management. This requires appropriate communication skills to structure and present information and interact with others
8. Follow procedures to collect, deposit, recycle and/or dispose of waste in own work area
9. Follow procedures to respond to environmental emergencies such as spills and emissions. This may include following procedures to alert the appropriate emergency services
10. Maintain housekeeping standards in work area

**Knowledge of:**

11. Workplace approach to managing environmental issues. This includes awareness of relevant work procedures, personnel responsible for environmental issues, consultative arrangements for reporting and improving environmental practices and may include an understanding of the role of internal and external auditors as appropriate
12. Responsibilities of self and employer to manage environmental issues on site. This includes an awareness of any licenses or agreements in place with resource management authorities and the purpose of these arrangements
13. Sources of advice on environmental issues in the workplace
14. Environmental hazards and risks associated with the work carried out. Examples may include water pollution, air pollution, noise, waste handling, emergencies such as spills and hazardous chemicals or waste
15. Work procedures as they relate to environmental responsibilities. This includes use of appropriate personal protective clothing and equipment as required

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16. Procedures used to prevent or control environmental risks associated with own work. Where this requires use of emergency equipment, this includes understanding the purpose, capacity and limitations of equipment, location and storage requirements and safe handling and equipment use
17. Basic concepts of hazard identification, risk assessment and control options. This includes an understanding of the hierarchy of hazard control
18. Workplace procedures for identifying and responding to hazards, investigating incidents and improving environmental management and resource utilization
19. Impact of work practices on resource utilisation and wastage
20. Procedures used to handle and dispose of waste according to workplace requirements. This includes an awareness of the need to separate solid and liquid waste, remove waste in solid form rather than hosing down drains. It may also include an understanding of handling requirements for hazardous waste
21. The difference between trade waste and storm water drains
22. Consequences of inappropriate waste handling and disposal
23. Procedures for responding to unplanned incidents such as spills and leaks as relevant to the work area
24. Emergency response system and procedures
25. Responsible use of resources in own work area
26. Reporting procedures and responsibilities
27. Consultative processes in the workplace for raising issues/suggestions on environmental issues

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional unit may be relevant:

SUGPWWT2A Operate a waste water treatment system

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Environmental policies and procedures
- Work procedures, including environmental operating requirements and risk control methods
- Work process and related services/resources
- Waste collection, treatment, recycling and/or disposal methods

- Procedures for responding to unplanned events and accidents. This includes emergency response program and procedures
- Equipment that the operator may need to use in order to control an environmental hazard, for example spill kits
- Monitoring and reporting system

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFOPTHCP3A Participate in a HACCP team

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to participate in the development and/or review of a HACCP-based food safety program under direction. It is appropriate where the operator requires a detailed understanding of the steps and techniques used to develop and review a HACCP-based food safety program.

This unit is based on and achieves part of the guideline food safety unit GFSDFSPA Develop food safety programs.

| Element | Performance criteria |
|---|---|
| 1. Prepare to develop and/or review a food safety program | 1.1 Roles and responsibilities for participating in developing or reviewing a food safety program are identified |
| | 1.2 The scope of the food safety program is identified |
| 2. Identify and/or review food safety hazards | 2.1 Processes to be covered by the food safety program are identified and steps within each process are described |
| | 2.2 Food safety hazards that are reasonably expected to occur are identified for each process |
| | 2.3 Handling methods, processing techniques and existing support programs used in the workplace are identified |
| 3. Establish and/or review methods to monitor and control food safety hazards | 3.1 Acceptable methods of control are established for each food safety hazard that is reasonably expected to occur |
| | 3.2 Control methods are validated |
| | 3.3 Procedures for taking preventative action are established |
| | 3.4 Appropriate methods for monitoring that processes remain within control are established |
| | 3.5 Required corrective action to respond to situations where hazards are not effectively controlled is established |

| | |
|---|---|
| 4. Establish and/or review food safety documentation, communication and recording systems | 4.1 Food safety-related roles and responsibilities are communicated<br>4.2 Records required to document, implement and maintain the food safety program are established<br>4.3 Record keeping requirements and responsibilities are communicated to food business personnel |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- This unit can be aligned at either AQF 3 or 4. When aligned at AQF 3 the person would typically participate in the development of the food safety program as part of a group. The scope of contribution would typically be limited to their immediate work area. When this unit is applied at AQF 4 the person may take a lead role in facilitating the development of the food safety program and would apply an understanding of food safety across more diverse operations or work areas
- A food safety program is a written document that specifies how a business will control all food safety hazards that are reasonably expected to occur in the food business. The food safety program must provide for the systematic monitoring of the controls as well as appropriate corrective action if a hazard is found not to be under control. Records must be kept to demonstrate action in relation to, or in compliance with the food safety program
- Methods used to control hazards include both support programs and specific hazard control limits or requirements. Typical examples of support programs include product recall, cleaning schedules, pest control programs, personal hygiene practices, calibration procedures and related operating procedures
- A food safety program may be developed as a stand-alone program or may be integrated with the quality program in a workplace
- Food safety hazards include micro-biological, chemical and physical hazards
- Validation refers to the use of objective evidence in order to prove that materials, processes, procedures or equipment used are capable of delivering the intended result
- Verification refers to reviewing all aspects of the food safety program and related records to determine compliance with and adequacy of the food safety program. At a minimum, food safety programs must be verified annually
- The scope of the HACCP-based plan depends on workplace requirements and may extend outside the direct area of responsibility of the team participants

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Identify personal roles and responsibilities for participating in the development or review of a food safety program
2. Identify processes and steps to be covered
3. Identify hazards that are reasonably expected to occur and establish appropriate methods of control. This may include participating in validating existing control methods and where there is no adequate control method in place, establishing an appropriate method
4. Establish or review procedures for implementing preventative action. Typically this involves revision of materials, processes and/or food handling procedures. It may require revision of workplace practices and documentation such as specifications, operating procedures and approved supplier programs
5. Describe the appropriate monitoring requirements for each food safety hazard. This includes a description of the method or procedure to be followed, the frequency and timing, the person responsible and the information to be recorded. Procedures to be followed would typically be specified in the form of a standard operating procedure or work instruction
6. Describe corrective action requirements in the event that acceptable limits or requirements of support programs are not met
7. Develop or review documentation relating to the design and maintenance of the food safety program. This may include process flow diagrams, hazard analysis charts and tables, support program requirements, data analysis reports, corrective action reports and verification reports
8. Develop or review documentation to communicate food safety responsibilities. This may include Standard Operating Procedures, processing parameters and recording devices such as log sheets
9. Communicate food safety responsibilities within level of responsibility using techniques and presentation styles appropriate to the audience

**Knowledge of:**

10. The purpose and intent of food safety legislation
11. Purpose and responsibilities for maintaining records as required by legislation and workplace procedures
12. Roles and responsibilities for development and maintenance of the food safety program. This includes roles of internal and external auditors and of authorized officers
13. Techniques for applying HACCP-based principles. This includes techniques for identifying hazards, assessing the likelihood of occurrence, determining acceptable methods of control, monitoring and recording requirements for each control point, identifying corrective action if controls are not met and developing system review procedures

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14. Techniques used to map operations and anaylse food safety requirements. This may include preparation of flow charts, hazard analysis charts and tables and data analysis reports
15. Raw materials, ingredient and finished product composition and characteristics and related handling and storage requirements
16. Food processing methods used in the workplace or work area and their effect on food safety
17. Sources of technical expertise on food safety requirements
18. The role of consultation in the development, implementation and ongoing maintenance of the food safety program
19. Documentation and recording requirements to support communication and monitoring of the food safety program. This includes procedures for maintaining and updating relevant documents such as operating procedures
20. Main types of food safety hazards/contamination likely to occur given the type of product and processing methods used
21. Conditions required for bacterial food poisoning to occur. This may include aw (water activity), pH, composition, time and temperature as relevant to food handled
22. Acceptable control methods for the hazards identified and required corrective action when control requirements are not met
23. Typical support programs such as cleaning schedules, pest control, stock rotation, product traceability and personal hygiene etc, and how they can be used as part of a food safety program
24. Acceptable control methods for the hazards identified and required corrective action when control requirements are not met
25. Validation and verification processes and techniques and responsibilities

**Relationship with other standards**
*Pre-requisite units*

The pre-requisite for this unit is:

FDFCORFSY2A Implement the food safety program and procedures

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role.

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Workplace food safety program documentation
- Advice on quality and food safety legislation

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- Procedures for developing or modifying specifications and other advice on food safety requirements
- Procedures for developing or modifying documentation such as work instructions and procedures, log sheets and other recording requirements
- Review / audit arrangements
- Consultative mechanisms
- Communication systems
- Training system
- Reporting/recording system

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFOPTIPP3A Implement the pest prevention program

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to implement an existing pest management program. In some states activities including purchasing and application of some pesticides is covered by licensing arrangements. Where this applies, the appropriate licence is a pre-requisite for undertaking this unit.

| Element | Performance criteria |
|---|---|
| 1. Monitor the implementation of pest prevention measures | 1.1 Inspections are conducted to monitor the effectiveness of pest prevention measures |
| | 1.2 Signs of pest infestation are identified, analysed and reported |
| | 1.3 Hygiene standards are maintained to meet company requirements |
| 2. Implement pest elimination procedures | 2.1 Control measures suited to infestation are selected |
| | 2.2 Procedures for the elimination of pests are implemented |
| | 2.3 Records are maintained |
| | 2.4 Waste is collected, treated and disposed of according to company procedures |
| 3. Review pest control programs | 3.1 Pest infestation is monitored to confirm effectiveness of treatment method |
| | 3.2 The treatment program is modified within level of responsibility |
| | 3.3 Changes to the treatment program are reported to the appropriate personnel |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out in accordance with company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP

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- Workplace information may include pest management program, pesticide labels, work instructions/operating procedures (SOPs), specifications, Materials Safety Data Sheets (MSDSs), manufacturers' advice, standard forms and reports
- Work may involve exposure to chemicals and other hazardous substances and may require working in accordance with a permit to work
- Where use of pesticides include work conditions covered by National Occupational Health and Safety Commission and/or state health and safety authorities, the assessment criteria and methods prescribed by these authorities must also be met
- Pests include vertebrates such as birds, insects, rats and mice and invertebrates such as insects
- Pest control methods may include fumigation, application of insecticides, dusts, gas and/or baits (using registered controlled and generally available substances)
- Selection of control measures occurs in the context of an existing program
- Application equipment may include automated reticulation systems, sprayers, misters and dosing equipment
- Tests may include testing the level of fumigant in the atmosphere and pressure testing
- Records are maintained to meet legal and company requirements

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Recognise indicators of pest invasion
2. Select appropriate control method according to the control program in place
3. Select, fit and use personal protective clothing and/or equipment
4. Follow pest elimination procedures. This may include preparing pesticides for use, applying pesticides according to company procedures and licensing arrangements, setting up and operating equipment such as fumigation and other pesticide application equipment, preparing and placing baits as required
5. Follow procedures to measure and monitor pest populations. This typically includes sampling, testing and recording data
6. Review effectiveness of control method/s and amend or recommend changes to program as required
7. Safely dispose of pesticides, residues, empty containers and pests
8. Monitor the implementation of housekeeping and cleaning standards

*May include ability to:*

9. Conduct tests. This may involve use instrumentation to measure the presence of airborne pesticides

10. Carry out basic maintenance required to support pest prevention measures
11. Liaise with external contractors

**Knowledge of:**

12. Basic principles of integrated pest management (IPM). These include identification of pest hazards, establishment of pest elimination methods and monitoring the effectiveness of these measures.
13. Methods used to prevent pest invasion suited to workplace and typical pest invasions. This includes an understanding of appropriate work area and storage design features to minimise the possibility of pest infestation through building access points, packaging materials/requirements to protect product from pests and other physical and mechanical control measures. It also includes minimising conditions, which attract pests by maintaining housekeeping and cleaning standards
14. Food safety issues relating to the use of pesticides in a food handling area
15. Characteristics and behaviour of each type of pest at each life cycle stage
16. Conditions required by pests for survival
17. Methods and procedures used to minimise pest resistance to elimination methods
18. Range of pesticides used in the workplace
19. Legislation, codes of practice and procedures relating to the purchase, transport, storage, use and disposal of pesticides
20. Safe procedures for handling, using and storing pesticides and dangerous goods. This includes identification of information provided on labels. It may also include handling of gas cylinders
21. Purpose, application and limitations of protective clothing and equipment

*May include knowledge of:*

22. Test methods
23. Basic maintenance procedures
24. Contractor service arrangements

**Relationship with other standards**

*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFOPTISP2A Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2A Conduct routine maintenance

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**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Work procedures including advice on safe work practices, food safety and environmental requirements
- Pesticide labels
- Material Safety Data Sheets and personal protective clothing and equipment
- Pest management program and procedures
- Pest management compounds and equipment
- Housekeeping procedures and cleaning schedules
- Work area. This can include storage, production and/or packaging areas
- Documentation and record keeping system

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZMHTS2A Work with temperature controlled stock

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to store and retrieve temperature-controlled stock from appropriate storage facilities. Where work is undertaken in a freezer storage environment, also consider FDFZMHFS2A Work in a freezer storage area.

| Element | Performance criteria |
|---|---|
| 1. Store stock to meet temperature control requirements | 1.1 Goods requiring temperature control are identified |
| | 1.2 Goods are located in correct storage areas to meet storage temperature, stores handling and stock rotation requirements |
| | 1.3 Stores information is recorded according to workplace requirements |
| 2. Monitor and maintain temperature of stock within specifications | 2.1 Stock temperature is monitored to confirm temperature is within specified limits |
| | 2.2 Storage areas are monitored to confirm temperature is within storage zone limits |
| | 2.3 Residence time in temperature controlled stores is monitored to meet stock control requirements |
| | 2.4 Out of specification storage temperatures are identified and corrective action is taken |
| 3. Transfer temperature controlled stock | 3.1 Goods are handled and transferred to meet maintain temperature control and meet stock rotation requirements |
| | 3.2 Stores transfer information is recorded according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company policies and procedures, regulatory and regulatory and regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety,

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environmental management, occupational health and safety, anti-discrimination and equal opportunity.

– Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports

– Temperature controlled stock may include stock to be stored at a constant temperature and storage at different temperatures for given durations

– Temperature controlled storage facilities include any controlled temperature environment

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to determine product handling and storage requirements
2. Identify storage requirements including temperature limits, minimum duration at given temperatures, and segregation and co-storage requirements
3. Identify temperature-controlled storage facilities and temperature zones available
4. Select, fit and use personal protective clothing and/or equipment
5. Use materials handling equipment in a temperature controlled environment as required to undertake work functions
6. Follow procedures to measure temperature of product. This can include use of instrumentation as required to take core and surface temperatures
7. Read instrumentation, such as temperature gauges, to monitor stores and zone temperatures
8. Identify and report out-of-standard temperatures in product and storage facilities
9. Take corrective action in response to out-of-specification temperatures including implementation of procedures to segregate damaged or potentially unsafe product
10. Complete records of stock receival and transfer as required
11. Maintain work area to meet housekeeping standards

**Knowledge of:**

12. OHS hazards and controls. This includes the purpose and limitations of protective clothing and equipment
13. Temperature controlled storage facilities and capacities available in the work area. This may include understanding of temperature zones within a single store and concepts such as the cold chain compliance as relevant to work requirements

14. Temperature control requirements of stock handled in the work area. This includes understanding of acceptable temperature ranges and consequences of failing to meet these ranges. It may also include requirements for gradual temperature change
15. Stock handling procedures for receiving and locating stock within a store including stock rotation and procedures for identifying, segregating, and disposing of damaged or potentially unsafe stock
16. Stock handling procedures for transferring temperature controlled stock from a temperature controlled environment. This includes awareness of maximum duration stock can be held outside a controlled environment
17. Food safety and quality consequences of stock temperature control requirements not being met
18. Monitoring procedures and instrumentation. This includes use of thermometers or other temperature measuring instrumentation
19. Notification, recording and reporting requirements
20. Operating procedures for goods handling equipment as required
21. Housekeeping requirements for work area
22. Recording requirements and procedures

**Relationship with other standards**

*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

- FDFZMHFS2A Work in a freezer storage area
- TDTD297B Shift a load using manually operated equipment
- TDTD1097B Operate a forklift
- TDTK197B Use infotechnology devices and computer applications in the workplace
- TDTA1497B Use product knowledge to complete work operations

**Resources required for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

- Personal protective clothing and equipment
- Work procedures including advice on safe work practices, food safety, quality and environmental requirements
- Temperature storage specifications

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- Stock handling and rotation systems
- Controlled temperature storage facilities
- Stock requiring storage
- Load shifting equipment as required
- Stock information recording system and procedures

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPKFCC2A Fill and close product in cans

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down a primary packaging process that fills product into cans and hermetically seals containers using a closer or seamer.

| Element | Performance criteria |
|---|---|
| 1. Prepare the filling and closing process for operation | 1.1 Materials and packaging components/consumables are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Machine components and related attachments are fitted and adjusted to meet operating requirements |
| | 1.4 Operating parameters are entered as required to meet safety and production requirements |
| | 1.5 Equipment performance is checked and adjusted as required |
| | 1.6 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the filling process | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that filled and closed containers meet specifications |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |

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| | |
|---|---|
| 3. Monitor closure and seaming stage | 3.1 The closing stage is monitored to confirm that closures and seams meet specifications |
| | 3.2 Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 3.3 The workplace meets housekeeping standards |
| | 3.4 Workplace records are maintained according to workplace recording requirements |
| 4. Shut down the filling and closing process | 4.1 The appropriate shut down procedure is identified |
| | 4.2 The process is shut down according to workplace procedures |
| | 4.3 Maintenance requirements are identified and reported |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, batch/recipe instructions, manufacturers' advice, standard forms and reports
- Product preparation can include acidifying, brining or syruping, exhausting
- Product may be hot or cold filled
- Can seam components include body hook, end hook, countersink, seam thickness, seam juncture and overlap
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2 A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

– Operation of equipment and processes may require the use of process control panels and systems

– Services are appropriate to the process to be operated. Typical examples include power, steam, water, vacuum, compressed and instrumentation air

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify processing requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services
4. Prepare/condition product for filling as required
5. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters to suit filling requirements, cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for filling and seaming requirements, sensors and controls are correctly positioned, any scheduled maintenance has been completed, and all safety guards are in place and operational
6. Start, operate, monitor and adjust the filling process and equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required to confirm process remains within specification. This may include:
7. fill temperatures
8. headspace
9. vacuum
10. visual appearance of the product
11. line speed/throughput
12. Monitor supply and flow of materials to and from the process
13. Start, monitor and adjust the closer to confirm alignment and formation of the seam
14. Monitor control points and conducting inspections related to the seaming/closing process. This includes confirming that coding is correct
15. Take corrective action in response to out-of-specification results
16. Conduct product/batch changeovers
17. Respond to and/or report equipment failure within level of responsibility
18. Locate emergency stop functions on equipment

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19. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
20. Complete workplace records as required
21. Demonstrate shift handover procedure
22. Maintain work area to meet housekeeping standards

*May include ability to:*

23. Use process control systems
24. Inspect seams
25. Collect samples and conduct tests
26. Clean and sanitise equipment

**Knowledge of:**

27. Purpose and basic principles of filling and closing. This includes an understanding of the properties and requirements of packaging materials used, hermetic sealing and properties of containers used for this purpose, coding requirements and related legal requirements including product weight
28. The flow of this process and the effect of the filling and seaming process on downstream processes
29. Basic operating principles of equipment. This may include an operational understanding of main equipment components, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation
30. Quality characteristics of the filled and closed container. This includes an understanding of seam components and integrity requirements within level of responsibility for inspection
31. Effect of raw material characteristics on filling and seaming
32. Quality parameters for cans and ends
33. Methods used to prepare product for filling
34. Effect of process variables such as headspace, fill temperature and vacuum on the process
35. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters. This includes an understanding of restart procedures following a crash or jam up
36. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
37. Techniques used to monitor the production/packing process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements

38. Contamination/food safety issues associated with filling and seaming and related control measures
39. Common causes of variation and corrective action required
40. OHS hazards and controls
41. Requirements of different shut downs as appropriate to the process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
42. Isolation, lock out and tag out procedures and responsibilities
43. Product/process changeover procedures and responsibilities
44. Procedures and responsibility for reporting production and performance information
45. Environmental issues and controls relevant to the process. This includes waste collection and handling procedures related to the process

*May include knowledge of:*

46. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
47. Sampling and testing procedures. This may include seam inspection procedures

– Cleaning and sanitising procedures

**Relationship with other standards**

*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFOPTISPA Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2 A Conduct routine maintenance
– FDFZCSCIP2A Clean equipment in place
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment

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- Work procedures including advice on safe work practices, food safety, quality and environmental requirements
- Production schedule
- Information on equipment capacity and operating parameters
- Specifications, control points and operating parameters
- Filling and closing and related equipment and services
- Materials to be filled as required
- Packaging components/consumables
- Sampling schedules and test procedures and equipment as required
- Documentation and recording requirements and procedures
- Cleaning procedures, materials and equipment as required
- Documentation and recording requirements and procedures

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPKPP2A Operate a packaging process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down a packaging process or sub-system. This unit is generic and should be customised for a given process. It should only be selected where no specific packaging unit is available.

| Element | Performance criteria |
|---|---|
| 1. Prepare the equipment and process for operation | 1.1 Packaging components/consumables, materials and items to be packaged are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Machine components and related attachments are fitted and adjusted to meet operating requirements |
| | 1.4 Operating parameters are entered as required to meet safety and production requirements |
| | 1.5 Materials, product and packaging components/consumables are loaded or positioned as required to meet packaging requirements |
| | 1.6 Equipment performance is checked and adjusted as required |
| | 1.7 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the process | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that specifications are met |
| | 2.5 Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification |

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| | |
|---|---|
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |
| 3. Shut down the process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Australian Food Standards Code and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- A packaging process may relate to primary and/or secondary packaging activities. It typically requires the operation of a series of related items of equipment to achieve the required outcome. Where a single item of packaging equipment is operated, refer to the unit FDFZPRBE1A Operate basic equipment
- Typical equipment that may form a packaging sub-system includes conveyor systems, filling, sealing, wrapping, thermo-form equipment, case packers, bundlers, ink jet coders, labellers, palletisers, shrink wrappers and strappers
- Packaging may include vacuum packing and Modified Atmosphere Packaging (MAP)
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2 A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

– Operation of equipment and processes may require the use of process control panels and systems

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify packaging requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary packaging components/consumables, materials and services
4. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear, setting coders and printers, selecting appropriate equipment settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for packaging requirements, sensors and controls are correctly positioned, any scheduled maintenance has been completed, and all safety guards are in place and operational
5. Start, operate, monitor and adjust packaging equipment to achieve required outcomes. This may include loading packaging components/consumables and/or product, monitoring control points such as weights, codes, placement, glue temperatures, alignment and appearance, configuration and seal integrity as required to confirm process remains within specification
6. Monitor supply and flow of materials to and from the process
7. Take corrective action in response to out-of-specification results
8. Respond to and/or report equipment failure within level of responsibility
9. Locate emergency stop functions on equipment
10. Follow isolation and lock out/tag out procedures as required to take packaging equipment off line in preparation for cleaning and/or maintenance within level of responsibility
11. Demonstrate batch/process changeovers
12. Complete workplace records as required
13. Maintain work area to meet housekeeping standards

*May include ability to:*

14. Use process control systems
15. Integrity testing of packaging
16. Carry out routine maintenance
17. Clean and sanitize equipment

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**Knowledge of:**

18. Purpose and basic principles of the packaging process. This includes an understanding of the purpose and characteristics required of packaging materials used the principles of the packaging process used. Where methods involve vacuum or MAP packaging, it includes an understanding of the effect of modified atmosphere on product shelf life
19. Product and packaging coding requirements and related legal requirements including product weight
20. Basic operating principles of equipment. This may include an operational understanding of main equipment components, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation. It also includes knowledge of services required and action to take if services are not available
21. The flow of processes supplying the packaging process and the effect of outputs on downstream processes
22. Quality characteristics required of the packaging process. This may include an understanding of the seal integrity requirements
23. Effect of variation in inputs which may include packaging components/consumables, materials and/or services, on process performance
24. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters. This includes an understanding of restart procedures following a crash or jam up
25. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
26. Methods used to monitor the packaging process. This may include visual inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
27. Contamination/food safety risks related to stages in the packaging process and related control measures
28. Common causes of variation and corrective action required
29. OHS hazards and controls
30. Requirements of different shut downs as appropriate to the packaging process. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage. This may involve conducting basic equipment referencing
31. Product/packaging changeover procedures and responsibilities
32. Isolation, lock out and tag out procedures and responsibilities
33. Procedures and responsibility for reporting production and performance information
34. Environmental issues and controls relevant to the process. This includes waste/rework collection and handling procedures related to the process

*May include knowledge of:*

35. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
36. Routine maintenance procedures
37. Packaging integrity testing
38. Cleaning and sanitation procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFOPTISPA Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2 A Conduct routine maintenance
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment
– Work procedures including advice on safe work practices, food safety, quality and environmental requirements
– Information on equipment capacity and operating parameters
– Specifications, control points and operating parameters
– Packaging and related equipment and services
– Materials to be packaged and packaging components/consumables as required
– Sampling schedules and test procedures and equipment as required
– Documentation and recording requirements and procedures
– Cleaning procedures, materials and equipment as required

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPMMB2A Operate a mixing/blending process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to combine ingredients and additives in the correct quantities and sequence and to operate and shut down mixing and blending equipment to achieve the required mix characteristics. Mixes may include concentrated pre-mixes or bulk blends. The output of this process may be a product requiring further processing or for external use.

This unit is appropriate to select where the mixing/blending process is a stand-alone process and involves an understanding of addition method and sequence. Where mixing is an in-line component of a larger process, this unit is not appropriate. Where the mixing process does not require a detailed understanding of sequencing or ingredient characteristics, the unit FDFZPMBM1A Prepare basic mixes may be more appropriate.

| Element | Performance criteria |
|---|---|
| 1. Prepare the mixing/blending equipment and process for operation | 1.1 Materials are confirmed and available to meet production requirements |
| | 1.2 Pre-mixes are prepared as required |
| | 1.3 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.4 Machine components and related attachments are fitted and adjusted to meet operating requirements |
| | 1.5 Processing/operating parameters are entered as required to meet production requirements |
| | 1.6 Equipment performance is checked and adjusted as required |
| | 1.7 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the mixing/blending process | 2.1 Ingredients and additives are delivered to the mixer in the required quantities and sequence to meet recipe specifications |
| | 2.2 The mixing/blending process is started and operated according to workplace procedures |
| | 2.3 Equipment is monitored to identify variation in operating conditions |
| | 2.4 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |

| | |
|---|---|
| | 2.5 The mixing process is monitored to confirm that specifications are met |
| | 2.6 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.7 Mix is transferred to required production or storage location |
| | 2.8 The workplace meets housekeeping standards |
| | 2.9 Workplace records are maintained according to workplace recording requirements |
| 3. Shut down the mixing/blending process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP

– Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, consignment notes, verification procedures and standard forms and reports

– Mixing/blending equipment may include measuring and weighing equipment such as scales, load cells, dosing equipment, mixers, pumps, in-line homogenisers, conveyors, bulk materials transfer and materials handling equipment, storage facilities. Common mixer types include ribbon and vertical screw mixers/conveyors

– Mixes can include concentrated pre-mixes, pastes and cocktails and bulk mixes/blends. Materials may include bulk and non-bulk ingredients and additives

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- Where this unit applies to preparation of dough, related processes may include extruding, stamping and cutting. Where this unit applies to cake and confectionery mix preparation, related processes may include aeration
- Ingredient addition may involve operation of automatic materials transfer equipment, dosing equipment and/or manually loaded
- Operation of equipment and processes may require the use of process control panels and systems
- Services are appropriate to the process to be operated. Typical examples include power, steam, fuel, vacuum, compressed and instrumentation air
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify mixing/blending requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services
4. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear; selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
5. Add/load materials in correct quantities and sequence. This may involve monitoring automatic ingredient addition and/or manual addition
6. Start, monitor and adjust batching/mixing process equipment as required to achieve required outcomes. This may include monitoring flow rates/quantity, time/temperature and mix/blending settings. It also includes monitoring control points and conducting inspections as required to confirm process remains within specification
7. Monitor supply and flow of ingredients and additives to and from the batching/mixing process
8. Pace mixing/blending to meet production requirements
9. Take corrective action in response to out-of-specification results
10. Respond to and/or report equipment failure within level of responsibility

11. Locate emergency stop functions on equipment
12. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
13. Complete workplace records as required
14. Demonstrate batch/product changeovers
15. Maintain work area to meet housekeeping standards

*May include ability to:*

16. Use process control systems
17. Collect samples and conduct tests
18. Label and store pre-mixes and/or mixes
19. Conduct routine maintenance
20. Clean and sanitise equipment

**Knowledge of:**

21. Purpose and basic principles of preparing mixes and blends. This includes an understanding of the characteristics and basic function of ingredients and additives used, method and sequence of ingredient addition required to achieve required blend characteristics. It may also include an understanding of the purpose of conditioning, maturation or holding stages required prior to further processing of the mix
22. Basic understanding of specific gravity and bulk density as appropriate for ingredients used
23. Basic operating principles of mixing/blending equipment. This may include an operational understanding of main equipment components, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation and awareness of calibration schedules for scales and related weighing/measuring equipment. It also includes knowledge of services required and action to take if services are not available
24. The flow of the mixing process and the effect of mix preparation on downstream processes
25. Procedures for requisitioning, receiving and returning ingredients from stores
26. Ingredient handling requirements and shelf-life/coding
27. Quality characteristics required of ingredients and additives and their effect on mixing process performance. This may include methods used to condition or prepare ingredients prior to addition
28. Methods used to monitor the blending/mixing process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements. Monitoring may include

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- flow rates
- ingredient/additive addition sequence
- times/temperatures and agitator speeds
- required characteristics of blend – typical requirements may include viscosity, appearance and temperature

29. Required attributes of the mixed/blended output. This may include a basic understanding of chemical, texture and flavour profiles as required
30. The effect of the mixing/blending parameters such as temperature and length of mix time on mixing outcome
31. Contamination/food safety risks associated with the process and related control measures. This includes an awareness of product compatibility and cross contamination risks and associated cleaning requirements. It may also include a knowledge of any common allergens used in mixes prepared
32. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters
33. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
34. Common causes of variation and corrective action required
35. OHS hazards and controls
36. Requirements of different shut downs as appropriate to the blending/mixing process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
37. Product/process changeover procedures and responsibilities
38. Isolation, lock out and tag out procedures and responsibilities
39. Procedures and responsibility for reporting production and performance information
40. Environmental issues and controls relevant to the mixing/blending process. This includes waste/rework collection and handling procedures related to the process

*May include knowledge of:*

41. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
42. An understanding of characteristics of solutions, suspensions and emulsions
43. Sampling and testing associated with process monitoring and control
44. Product labelling and storage requirements
45. Routine maintenance procedures
46. Cleaning and sanitation procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

- FDFZPRCI2A Operate a process control interface
- FDFOPTISPA Implement sampling procedures
- PMLTEST300A Perform basic tests
- FDFOPTCRM2 A Conduct routine maintenance
- FDFZCSCS2A Clean and sanitize equipment
- FDFZCSCIP2A Clean and sanitize equipment in place

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Personal protective clothing and equipment
- Work procedures including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions
- Information on equipment capacity and operating parameters
- Production schedule/batch/recipe instructions
- Specifications, control points and processing parameters
- Mixing/blending process equipment, services and related storage facilities as required
- Ingredients and additives required for the mixing/blending process
- Sampling schedules and test procedures and equipment as required
- Cleaning procedures, materials and equipment as required

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPRHT2A Operate a heat treatment process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down a heat treatment process. Heat treatment can include hot fill, aseptic processing, pasteurisation, ultra-high temperature (UHT) and high temperature short time (HTST) processing.

| Element | Performance criteria |
|---|---|
| 1. Prepare the heat treatment process for operation | 1.1 Materials are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Processing/operating parameters are entered as required to meet safety and production requirements |
| | 1.4 Equipment performance is checked and adjusted as required |
| | 1.5 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the heat treatment process | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that temperature specifications are met |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |

| | |
|---|---|
| 3. Shut down the heat treatment process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Australian Food Standards Code and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- Heat treatment equipment may include pumps, heat exchangers, holding and cooling stages, filters and clarifiers and direct steam injection equipment
- Operation of equipment and processes may require the use of process control panels and systems
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew
- Services may need to be confirmed. These depend on the nature of the process. Typical examples include power, steam, water, vacuum, compressed and instrumentation air
- Note that this unit overlaps with FDFZPRMBC2A Operate a mixing/blending and cooking process. Refer to advice on unit duplication in the section on qualification arrangements for further information

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify heat treatment requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services
4. Prepare materials as required
5. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear; selecting appropriate settings and/or related parameters; cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
6. Start, operate, monitor and adjust the heat treatment process and equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required to confirm process remains within specification. This can involve monitoring:
   - time and temperature
   - pressure
   - flow rates
   - flow diversion
7. Monitor supply and flow of materials to and from the process
8. Take corrective action in response to out-of-specification results
9. Respond to and/or report equipment failure within level of responsibility
10. Locate emergency stop functions on equipment
11. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
12. Demonstrate procedure to clean and sanitize equipment
13. Complete workplace records as required
14. Maintain work area to meet housekeeping standards

*May include ability to:*

15. Control related holding and cooling stages
16. Use process control systems
17. Conduct routine maintenance
18. Conduct product/batch changeovers
19. Collect samples and conduct tests

**Knowledge of:**

20. Purpose and basic principles of heat treatment. This includes the effect of heat treatment on product and on microbiological characteristics. It also includes an understanding of the relationship between time, temperature and pressure in the heat treatment process. It may include associated holding and cooling profiles according to product requirements
21. Basic operating principles of equipment. This may include an operational understanding of main equipment components, types and characteristics of heating mediums used, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation
22. The flow of this process and the effect of product output on downstream processes
23. Quality characteristics required of the heat treated product
24. Effect of raw material characteristics on the heat treatment process. This may include variation in viscosity/texture, microbial load and acidity
25. Heat treatment requirements for food to be treated. This may include low and/or high acid foods
26. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters
27. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
28. Methods used to monitor the production process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
29. Contamination/food safety risks associated with the process and related control measures
30. Common causes of variation and corrective action required
31. OHS hazards and controls. This includes awareness of the limitations of protective clothing and equipment relevant to the work process
32. Requirements of different shut downs as appropriate to the process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
33. Isolation, lock out and tag out procedures and responsibilities
34. Procedures and responsibility for reporting production and performance information
35. Cleaning and sanitation procedures
36. Environmental issues and controls relevant to the process. This includes waste collection and handling procedures related to the process

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*May include knowledge of:*

37. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
38. Product/process changeover procedures and responsibilities
39. Routine maintenance procedures
40. Sampling and testing associated with process monitoring and control

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

- FDFZPRCI2A Operate a process control interface
- FDFOPTISPA Implement sampling procedures
- PMLTEST300A Perform basic tests
- FDFOPTCRM2A Conduct routine maintenance
- FDFZCSCIP2A Clean equipment in place
- FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Personal protective clothing and equipment
- Work procedures including advice on safe work practices, food safety, quality and environmental requirements
- Information on equipment capacity and operating parameters
- Production schedule/batch instructions
- Specifications, control points and processing parameters
- Heat treatment process and related equipment and services
- Materials to be heat treated
- Sampling schedules and test procedures and equipment as required
- Documentation and recording requirements and procedures
- Cleaning procedures, materials and equipment as required

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPROR2A Operate a retort process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down a retort or cooker.

| Element | Performance criteria |
|---|---|
| 1. Prepare the retort equipment and process for operation | 1.1 Materials are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Processing/operating parameters are entered as required to meet safety and production requirements |
| | 1.4 Equipment performance is checked and adjusted as required |
| | 1.5 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the retort process operation | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that specifications are met |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |

| | |
|---|---|
| 3. Shut down the retort process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- Retort/cooker equipment includes static and batch retorts and continuous retorts including hydrostatic cookers, with or without over-pressure, coding and materials handling equipment
- Equipment components typically include vents, bleeders, spreaders and time and temperature measurement instrumentation
- Process stages typically include cooking, cooling and post-cooling container handling
- Operation of equipment and processes may require the use of process control panels and systems
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew
- Services may need to be confirmed. These depend on the nature of the process. Typical examples include power, steam, water, vacuum, compressed and instrumentation air

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify processing requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services. This includes confirming container coding, treating or confirming availability of treated cooling water
4. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear; selecting appropriate settings and/or related parameters; cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
5. Start, operate, monitor and adjust the cooking and cooling process equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required to confirm process remains within specification. This includes monitoring time, temperature and pressure at each stage
6. Cool, clean and handle post-treated containers to meet requirements
7. Monitor supply and flow of materials to and from the process
8. Take corrective action in response to out-of-specification results
9. Respond to and/or report equipment failure within level of responsibility
10. Demonstrate batch changeovers
11. Locate emergency stop functions on equipment
12. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
13. Complete workplace records as required
14. Maintain work area to meet housekeeping standards

*May include ability to:*

15. Use process control systems
16. Conduct routine maintenance
17. Collect samples and conduct tests
18. Clean and sanitize equipment

**Knowledge of:**

19. Purpose and basic principles of heat treatment and retort process. This includes an understanding of the relationship between time and temperature in the retort process and the changes and requirements of each stage such as cooking, cooling and post-treatment container handling. It also includes an understanding of the purpose and requirements of container coding
20. Basic operating principles of equipment. This may include an operational understanding of main equipment components, including thermometers, chart recorder, temperature control system, clock and pressure gauges; status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation
21. The flow of this process and the effect of product output on downstream processes
22. Quality characteristics required of the retorted product
23. Effect of raw material characteristics on process performance
24. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters
25. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
26. Techniques used to monitor the retort process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
27. Contamination/food safety risks associated with the process and related control measures. This includes an understanding of both the risks of contamination related to processing and to post-processing handling of containers
28. Common causes of variation and corrective action required. This may include an understanding of the effects of variables such as container size, product particulates, pH, water activity, time/temperature and pressure on process outcomes
29. OHS hazards and controls
30. Requirements of different shut downs as appropriate to the process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
31. Isolation, lock out and tag out procedures and responsibilities
32. Product/process changeover procedures and responsibilities
33. Procedures and responsibility for reporting production and performance information
34. Environmental issues and controls relevant to the process. This includes waste collection and handling procedures related to the process

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*May include knowledge of:*

35. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
36. Sampling and testing associated with process monitoring and control
37. Routine maintenance procedures
38. Cleaning and sanitation procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFOPTISPA Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2A Conduct routine maintenance
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment
– Work procedures including advice on safe work practices, food safety, quality and environmental requirements
– Information on equipment capacity and operating parameters
– Production schedule/batch instructions
– Specifications, control points and processing parameters
– Retort process and related equipment and services
– Materials to be processed
– Sampling schedules and test procedures and equipment as required
– Documentation and recording requirements and procedures
– Cleaning procedures, materials and equipment as required

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPRPP2A Operate pumping equipment

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to inspect, operate and monitor pumps and related equipment. This unit should be selected where an operator requires an understanding of the operating principles and components of pumps/the pumping system and related equipment in order to carry out work requirements.

| Element | Performance criteria |
|---|---|
| 1. Prepare pumps for operation | 1.1 Pre-start checks on pumps and related equipment are carried out |
| | 1.2 Appropriate settings are selected to meet safety and production requirements |
| | 1.3 Condition of pumps and related equipment is monitored and maintenance requirements are identified and reported according to workplace reporting requirements |
| 2. Monitor pump operation | 2.1 Pumps and related equipment are started and monitored to identify variation in operating conditions |
| | 2.2 Corrective action is taken as required to maintain pump operation within equipment capacity and operating parameters |
| 3. Complete pump operations | 3.1 Pumps are prepared for cleaning and/or maintenance |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP

– Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports

– Pumps may include but are not limited to centrifugal pumps, reciprocating or positive displacement pumps, diaphragm pumps, helical screw pumps and electrical submersible pumps

– Related equipment may include valves, gauges and flow meters, pipework, screens and filters

– Pump operation may require use of process control screens and systems

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify pumping requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of materials to be pumped and necessary services
4. Conduct pre-start checks. This may involve inspecting pump flanges, gaskets and seals to identify any signs of wear, checking related valve assemblies to identify any signs of leaks, cancelling isolation or lockouts as required. Where pumps have variable settings, selecting appropriate settings and confirming that related pipework is correctly configured for pumping requirements.
5. Monitor and adjust pump operation as required. This may include identifying variation in amperage and adjusting pump speeds/flow rates to meet pumping requirements
6. Monitor supply and flow of materials to and from the pump
7. Follow isolation and lock out/tag out procedures as required to take pumps and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility. Preparation of equipment may include flushing or pigging related lines and pipework, removal of faceplate
8. Respond to and/or report pump equipment failure within level of responsibility
9. Locate stop and reset functions on pumps
10. Maintain work area to meet housekeeping standards

*May include ability to:*

11. Operate pumps using process control systems
12. Conduct routine pump maintenance
13. Clean pumps and related equipment

**Knowledge of:**

14. Basic operating principles of pumps and related equipment. This includes an understanding of main pump components, status and purpose of guards and an understanding of pump system configuration including valves, taps and pipework and the effect of pumping system design on operating performance including flow resistance, pressure and head

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15. Operating capacities of pumps used in the work area. This includes an awareness of different pump types as required to perform pumping operations where relevant
16. Effect of raw material characteristics on pump performance. This may include variables such as soluble solids, temperature and viscosity
17. Effect of pump operating parameters on product/materials pumped
18. Corrective action required where pump operation is outside specified operating parameters
19. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
20. Services required
21. Isolation, lock out and tag out procedures and responsibilities
22. OHS hazards and controls
23. Procedures and responsibility for reporting problems
24. Environmental issues and controls. This includes action required in the event of significant leaks or spills

*May include knowledge of:*

25. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
26. Routine pump maintenance requirements and procedures
27. Cleaning procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFZMHLT2A Operate a bulk liquid transfer process
– FDFOPTCRM2A Conduct routine maintenance
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment

- Work procedures including advice on safe work practices, food safety, quality and environmental requirements
- Information on equipment capacity and operating parameters
- Pumps, related equipment and services
- Materials to be pumped
- Routine preventative maintenance schedule as required
- Cleaning procedures, materials and equipment as required

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPRPR2A Operate a production process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, monitor, and adjust a production process or sub-system. This unit is generic and should be customised for a given process. It should only be selected where no process-specific unit is available.

| Element | Performance criteria |
|---|---|
| 1. Prepare the equipment and process for operation | 1.1 Materials are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Machine components and related attachments are fitted and adjusted to meet operating requirements |
| | 1.4 Processing/operating parameters are entered as required to meet safety and production requirements |
| | 1.5 Equipment performance is checked and adjusted as required |
| | 1.6 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the process | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that specifications are met |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |

| | |
|---|---|
| 3. Shut down the process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Australian Food Standards Code and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- A production process or sub-system may require operation of a series of related items of equipment to achieve the process outcome
- Operation of equipment and processes may require the use of process control panels and systems
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2A Conduct routine maintenance
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew
- Services may need to be confirmed. These depend on the nature of the process. Typical examples include power, steam, water, vacuum, compressed and instrumentation air

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify processing requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services
4. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear; selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
5. Start, operate, monitor and adjust process equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required to confirm process remains within specification
6. Monitor supply and flow of materials to and from the process
7. Take corrective action in response to out-of-specification results
8. Respond to and/or report equipment failure within level of responsibility
9. Locate emergency stop functions on equipment
10. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
11. Complete workplace records as required
12. Maintain work area to meet housekeeping standards

*May include ability to:*

13. Use process control systems
14. Demonstrate batch/product changeovers (may not apply to some continuous operations)
15. Collect samples and conduct tests
16. Conduct routine maintenance
17. Clean and sanitize equipment

**Knowledge of:**

18. Purpose and basic principles of the process
19. Basic operating principles of equipment. This may include an operational understanding of main equipment components, status and purpose of guards, status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation. It also includes knowledge of services required and action to take if services are not available
20. The flow of this process and the effect of outputs on downstream processes
21. Quality characteristics to be achieved by the process
22. Quality requirements of materials and effect of variation on process performance
23. Operating requirements, parameters and corrective action required where operation is outside specified operating parameters
24. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
25. Methods used to monitor the production process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
26. Contamination/food safety risks associated with the process and related control measures
27. Common causes of variation and corrective action required
28. OHS hazards and controls. This includes awareness of the limitations of protective clothing and equipment relevant to the work process
29. Requirements of different shut downs as appropriate to the process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
30. Isolation, lock out and tag out procedures and responsibilities
31. Procedures and responsibility for reporting production and performance information
32. Environmental issues and controls relevant to the process. This includes waste/rework collection and handling procedures related to the process

*May include knowledge of:*

33. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
34. Product/process changeover procedures and responsibilities
35. Sampling and testing associated with process monitoring and control
36. Routine maintenance procedures
37. Cleaning and sanitation procedures

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**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface

– FDFOPTISPA Implement sampling procedures

– PMLTEST300A Perform basic tests

– FDFOPTCRM2A Conduct routine maintenance

– FDFZCSCIP2A Clean equipment in place

– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment

– Work procedures including advice on safe work practices, food safety, quality and environmental requirements

– Information on equipment capacity and operating parameters

– Production schedule/batch instructions

– Specifications, control points and processing parameters

– Process and related equipment and services

– Materials to be processed

– Sampling schedules and test procedures and equipment as required

– Documentation and recording requirements and procedures

– Cleaning procedures, materials and equipment as required

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPRSYS3A Operate processes in a production system

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate and adjust inter-related processes in a production system. A system typically involves a series of inter-related processes that must be co-ordinated and concurrently operated to produce the required outcome. Individual processes may be directly operated, automated and/or operated by others.

System operation requires higher level planning and problem solving skills applied to the series of processes than is required when operating an individual unit of equipment or multiple pieces of the same equipment.

| Element | Performance criteria |
|---|---|
| 1. Prepare the production system for operation | 1.1 Equipment, materials and services are confirmed and available to meet production requirements |
| | 1.2 Cleaning requirements and equipment status is identified and confirmed |
| | 1.3 Machine settings are selected or adjusted as required to meet safety and production requirements |
| | 1.4 Processing/operating parameters are entered as required to meet production requirements |
| | 1.5 Materials, ingredients and/or product are loaded or positioned as required to meet production requirements |
| | 1.6 Pre-start checks are carried out as required by workplace requirements |
| | 1.7 Equipment performance is checked and adjusted as required |
| | 1.8 Equipment is ready and safe to operate |

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| | |
|---|---|
| 2. Operate and monitor the production system | 2.1 The system is started up and operated according to company procedures |
| | 2.2 System equipment components are monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The production system is monitored to confirm that specifications are met |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| 3. Handover production system operation | 3.1 Workplace records are maintained according to workplace recording requirements |
| | 3.2 Handover is carried out according to workplace procedures |
| | 3.3 Process operators are aware of system and related equipment status at completion of handover |
| 4. Shut down the production system | 4.1 The appropriate shut down procedure is identified |
| | 4.2 The system is shut down according to workplace procedures |
| | 4.3 Maintenance requirements are identified and reported |
| 5. Contribute to continuous improvement of the production system | 5.1 System performance is reviewed against output plan/targets |
| | 5.2 Opportunities for system improvement are identified and investigated |
| | 5.3 Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, performance records and reports
- A system typically involves a series of inter-related processes that must be co-ordinated and concurrently operated to produce the required outcome
- System operation may involve co-ordination of operators of system components
- Handovers may be done in person or via recording/communication systems according to workplace arrangements
- Operation and monitoring of equipment and system processes typically requires the use of control panels and systems
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew
- Confirming cleaning requirements and status may involve accessing cleaning records

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access production schedule and related information to identify system output and operating requirements. This may involve planning daily production schedules and/or modifying plans to respond to operating conditions and customer requirements
2. Liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements
3. Confirm supply of necessary equipment and related attachments, materials and services
4. Select, fit and use personal protective clothing and/or equipment

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5. Set and/or adjust equipment to meet process output requirements. This includes inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lockouts are cancelled as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational. Checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks
6. Load and/or position materials, ingredients and/or product as required
7. Operate and monitor the production system. This may involve use of a process control system and/or observing/supporting others to follow correct operating procedures
8. Monitor materials flow and work-in-progress through the system
9. Confirm that the system operates within specified parameters and inspection/ control points are monitored
10. Determine responses to out-of-specification results or non-conformance within level of responsibility
11. Monitor operating efficiencies of the system and investigate, resolve and/or report problems
12. Plan scheduled events to minimise disruption to production
13. Conduct/co-ordinate product or batch changeovers
14. Conduct/co-ordinate shift handovers
15. Review and maintain procedures to support system improvements
16. Maintain work area to meet housekeeping standards

**Knowledge of:**

17. Purpose and basic principles of the production system. This includes an understanding of the system process flow, the inter-relationships of each process to identify the impact of variation in one on related processes and optimisation options
18. Basic operating principles of equipment and related accessories used by the system. This includes a knowledge of equipment adjustment points, status and purpose of guards, range and location/alignment requirements of sensors and related feedback instruments
19. Operating capacities of equipment used in the system. This may include an awareness of different types of equipment and/or components as required by processing/packaging operations
20. Understanding of related systems and responsibilities for interaction. These typically include related production systems, services supply, packaging/ warehousing, maintenance, laboratory/quality assurance and planning and scheduling

21. Technical knowledge of product characteristics and common types of variation in materials and/or ingredients used. This includes an understanding of the effect of variation on each stage of the system and scope to adjust or correct
22. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
23. Relevant procedures, specifications and operating parameters for the system and the individual processes
24. Isolation, lock out and tag out procedures and responsibilities
25. Hazards, risks, controls and methods for monitoring processes within the system. This includes health and safety, food safety, quality and environmental hazards and risks
26. Workplace system and approach to equipment maintenance
27. Process improvement procedures and related consultative arrangements
28. Troubleshooting procedures and problem solving techniques
29. Communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues
30. Procedures and responsibility for reporting production and performance information

**Relationship with other standards**

*Pre-requisite units*

At least two specialist units at AQF 2, relevant to the system operated are pre-requisites for this unit except where this unit is applied to a Plant Baking or Retail Baking qualification where no pre-requisite units from AQF 2 apply.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFOPTSM3A Support and mentor individuals and groups

**Resources required for assessment**

Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment
– Production schedule and related advice on system requirements
– Information on equipment capacity and operating parameters
– Production system equipment and related accessories and services
– Materials/consumables required by the process

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– Communication and recording systems and procedures

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPRW1A Participate effectively in a workplace environment

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to participate effectively in a workplace environment.

| Element | Performance criteria |
|---|---|
| 1. Carry out responsibilities in accordance with workplace policies and procedures | 1.1 Information on conditions of employment, company policies and procedures are identified<br>1.2 Policies and procedures are applied when carrying out work role |
| 2. Identify and locate company product and processes | 2.1 Company product range is identified<br>2.2 Production/packaging stages and processes carried out on site are identified and located |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out in accordance with company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements. When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP

– Company policies and procedures referred to are additional to those covered by OHS, quality, food safety and environmental competency standards. They include codes of practice and general employment policies and procedures in areas such as sexual harassment, EEO/affirmative action, anti-discrimination, racial vilification and workplace bullying

– Conditions of employment typically include pay and conditions, leave arrangements, reporting and timekeeping responsibilities, terms of employment including permanent, casual and probationary periods, disciplinary procedures, staff facilities and amenities

– Key personnel may include but are not limited to HR personnel responsible for recruitment, training, pay and conditions issues, relevant site and operations managers, supervisors/team leaders and industrial/work area representatives

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Identify and access information on conditions of employment and workplace policies and procedures. Information may be provided in print, audio-visual and/or verbal formats
2. Locate workplace amenities and facilities relevant to work responsibilities
3. Identify and locate materials/storage areas in the work place, relevant to work role. This may include locating tank farms and other bulk storage locations and identifying special storage conditions such as hazardous goods and temperature controlled stores areas
4. Identify and locate production and packing processes/main work areas in the workplace
5. Model appropriate behaviour when interacting with others and moving around the workplace

**Knowledge of:**

6. Workplace structure and key personnel
7. Rights and responsibilities of employees as defined in employment conditions
8. Company policies and procedures relating to work responsibilities. This includes awareness of areas covered by legislation and related responsibilities
9. Appropriate personal conduct in a work area. This includes minimum clothing and personal hygiene standards when entering and moving around a food processing area in order to protect both employees and product safety. It also covers appropriate behaviour towards others in the work area
10. Industrial representation arrangements
11. Site security arrangements. This includes awareness of responsibility to report when coming on and off site
12. Site layout. This includes main facilities such as canteens, parking areas, storage areas processing and packing areas and location of emergency exits and assembly areas
13. The main products/product range produced in the workplace
14. Stages and processes used to manufacture and package products
15. Personal reporting roles and responsibilities

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**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with other units of competence relevant to the work role.

**Resources required for assessment**
Assessment must occur in a real workplace where the assessee has access to:

- Advice on work roles and responsibilities
- Advice on workplace policies, codes of practice, procedures, structure and personnel
- Advice on conditions of employment and entitlements
- Site maps
- Workplace access

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFOPTISP2A Implement sampling procedures

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to understand the requirements of sampling plans, collect and transfer samples to retain sample integrity. Operators requiring this competency would typically be required to follow specific sampling procedures such as aseptic sampling.

| Element | Performance criteria |
|---|---|
| 1. Prepare for sampling | 1.1 Sampling requirements are identified in accordance with the sampling plan |
| | 1.2 Sampling equipment, containers and labels are prepared |
| 2. Collect samples | 2.1 Samples are collected according to sampling procedures and the requirements of the sampling plan |
| | 2.2 Samples are handled and prepared to preserve sample and source integrity |
| | 2.3 Defects or abnormalities in source material and/or sample are identified and reported |
| | 2.4 Sample information is recorded according to workplace sample recording requirements |
| | 2.5 The workplace meets housekeeping standards |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, sampling plans

– When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP

– Sampling requirements include sampling under standard conditions and sampling after processes are adjusted in response to variation or non-conformance

– Sampling typically occurs at a number of points and using a range of techniques

– Maintenance of sample integrity may be achieved by use of appropriate personal protective clothing, clean sampling tools and containers (sterilised tools/containers for aseptic sampling), temperature control and addition of preservatives as required

– Sampling techniques may include sub-sampling

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access and interpret sampling plan to identify sampling requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Prepare for sampling to ensure required tools, containers and labels are available
4. Follow sampling procedures and the sampling plan to collect samples from the point/s, in the quantities and at the times specified
5. Identify atypical source materials and/or samples and take corrective action. This may involve reporting abnormalities, repeating sample collection and/or following intensive sampling schedules as required
6. Complete sample records according to workplace requirements. This may include labelling samples as required
7. Transfer samples for testing
8. Maintain work area to meet housekeeping standards

*May include ability to:*

9. Prepare samples according to procedure

**Knowledge of:**

10. Basic sampling principles. This includes an understanding of the importance of following the sampling plan to obtain representative sampling reflecting characteristics of source material, the sample characteristics and related preservation, handling and storage requirements and the labelling system purpose and requirements
11. Tests to be conducted on samples and related handling and preparation requirements and responsibilities
12. Characteristics of materials sampled and common contaminants and related conditions under which contamination is likely to occur
13. Sampling techniques relevant to samples collected. This may include an understanding of sterilisation methods and procedures
14. The relationship between sampling, testing and production processes. This includes an understanding of different sampling regimes that may apply in response to non-standard conditions or after corrective action is taken to adjust production outputs
15. Procedures and responsibility for reporting and recording sampling information. This may include legislative requirements

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*May include knowledge of:*

16. Procedures for preparing samples

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional unit may be relevant:

– PMLTEST300A Perform basic tests

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Sampling plan

– Documentation including specifications, work instruction and other advice on sampling requirements

– Recording and reporting system

– Sampling instrumentation and containers as required

– Product/source material to be sampled

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFOPTRWP3A Report on workplace performance

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to collate and maintain workplace records. This unit would typically apply to a team leader or person responsible for monitoring and reporting on performance of a work area or section.

| Element | Performance criteria |
|---|---|
| 1. Identify recording and reporting requirements | 1.1 The purpose of recording information is identified |
| | 1.2 Recording and reporting responsibilities are identified |
| | 1.3 Recording and reporting systems and formats are identified |
| 2. Maintain workplace information | 2.1 Records are complete, timely and accurate |
| | 2.2 Performance information is recorded in required format to meet workplace reporting requirements |
| | 2.3 Errors or discrepancies in recording are identified and corrected or notified to appropriate personnel |
| | 2.4 Variances are identified, investigated and reported according to workplace procedure |
| | 2.5 Requests for information are assessed, prioritised and addressed to meet required timelines |
| 3. Maintain security of workplace information | 3.1 Access levels and authorities are identified |
| | 3.2 Security of workplace records and reports is maintained |
| | 3.3 Security breaches are identified and reported to appropriate personnel |

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## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out in accordance with company policies, procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Information recorded and reported may include but is not limited to collation of information recorded by others such as timesheets, log sheets, recipes/specifications, operating procedures, production statistics and downtime, labour and materials usage levels

– Recording systems may be carried out manually or involve the use of use of planning and systems control software such as SAP and MRPII

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Identify and use recording/reporting formats and systems
2. Identify information security requirements and procedures for responding to/reporting a security breach
3. Collect and collate information to be recorded as required
4. Assess information to confirm that it is complete and accurate. Follow up inaccurate recording with relevant personnel
5. Identify significant performance variance, investigate and report cause/s
6. Prepare reports in required format to meet reporting timelines
7. Respond to information requests on a timely basis

**Knowledge of:**

8. The purpose and responsibilities for the information records and reports to be maintained/produced. This includes an understanding of accuracy levels and timeliness of recording and reporting
9. Techniques used to collate and assess information. This includes an understanding of typical recording outcomes to identify unusual or incorrectly recorded information
10. Likely causes of variation and related reporting responsibilities
11. Information system access levels and codes. This may include access levels within software
12. Communication skills relevant to reporting role

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisites for this unit.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role.

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Advice on workplace policies, codes of practice and procedures

– Workplace information/records

– Recording/reporting formats and systems

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFOPTSM3A Support and mentor individuals and groups

**Unit descriptor**

This is an Optional unit. It covers the skills and knowledge required to model appropriate work practices, provide feedback to groups and individuals and facilitate group processes. A person competent in this unit may or may not have formal responsibility for managing others.

| Element | Performance criteria |
|---|---|
| 1. Support others in the work area | 1.1 Mentor others to meet work requirements |
| | 1.2 Identify performance that is inappropriate and take corrective action |
| | 1.3 Provide feedback on performance |
| 2. Facilitate group processes | 2.1 Purpose of group process is identified |
| | 2.2 Meeting procedures required to achieve an agreed outcome is determined and applied |
| | 2.3 Group members are engaged in the process |
| | 2.4 Clear outcomes are reached in a timely manner |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out in accordance with company policies, procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Mentoring and feedback arrangements may be formal or informal

– Corrective action may include reporting an incident to a more senior person as appropriate

– Group processes may include formal meeting procedures and informal discussions or group meetings where facilitation skills can be demonstrated

– Communication systems reflect the culture of the workplace and the workforce. This may include communicating with people from diverse cultural backgrounds and with people with limited English language and literacy skills

– Meeting procedures include developing an agenda, seeking input, recording actions arising and working towards an agreed outcome within time allocation

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Model behaviour consistent with company policies and procedures
2. Identify behaviour or performance that is unacceptable
3. Structure interventions and feedback to clearly convey required standard of performance
4. Apply appropriate explanation, demonstration, questioning and active listening techniques when interacting with others
5. Provide feedback appropriate to the audience requirements
6. Recognize and respond appropriately to difference and diversity in the workplace
7. Provide and/or arrange opportunities to develop/practice appropriate skills
8. Plan group processes. This includes clearly identifying the purpose of the discussion or meeting, confirming the appropriate people are available and planning a basic outline of the approach and/or agenda
9. Facilitate meetings. This includes confirming with group members the purpose of the discussion or meeting, engaging people in discussion and assisting the group to reach an agreed outcome within the allotted timeframe. It also involves recording outcomes
10. Follow up group processes. This includes identifying actions required to follow up outcomes of a discussion or meeting.

**Knowledge of:**

11. Company policies and procedures as they apply to the work area. This includes areas covered by legislation such as sexual harassment, EEO/Affirmative action, anti-discrimination, racial vilification and workplace bullying, OHS, food safety and environmental management
12. Industry awards and enterprise agreements to develop an awareness of the main issues covered as they affect day-to-day work arrangements
13. Systems and programs in the workplace to support development and mentoring of others
14. Relevant resources to support mentoring role and responsibilities
15. Techniques for structuring and explaining work-related information to meet the needs of people in the work area
16. Interpersonal skills including appropriate questioning, listening and feedback techniques
17. Training/assessment arrangements in the workplace and related responsibilities
18. Boundaries of responsibility and related procedures for feedback, counselling and disciplinary procedures

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19. Formal arrangements and responsibilities for consulting others relating to work role

20. Meeting procedures and recording requirements as relevant in the workplace

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisites for this unit.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional units may be relevant:

– FDFOPTSD2A Work in a socially diverse environment

– FDFOPTTG3A Lead work teams and groups

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Advice on workplace policies, codes of practice and procedures

– Opportunities to interact with others using typical workplace communication processes

– Typical group forums. These may include structured group discussions and committees meetings

– Workplace systems and procedures for consultation, feedback, counseling and discipline

– Advice on conditions of employment and entitlements

– Opportunities to interact with others using typical workplace communication processes

– Typical group forums which can include work groups and committees

– Information systems including recording and retrieval systems

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPKSYS3A Operate processes in a packaging system

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate and adjust inter-related processes in a packaging system. A system typically involves a series of inter-related processes that must be co-ordinated and concurrently operated to produce the required outcome. Individual processes may be directly operated, automated and/or operated by others.

System operation requires higher level planning and problem solving skills applied to the series of processes than is required when operating an individual unit of equipment or multiple pieces of the same equipment.

| Element | Performance criteria |
|---|---|
| 1. Prepare the packaging system for operation | 1.1 Equipment, materials and services are confirmed and available to meet packaging requirements |
| | 1.2 Cleaning requirements and equipment status is identified and confirmed |
| | 1.3 Machine settings are selected or adjusted as required to meet safety and production requirements |
| | 1.4 Operating parameters are entered as required to meet production requirements |
| | 1.5 Product and/or packaging components and consumables are loaded or positioned as required to meet packaging requirements |
| | 1.6 Pre-start checks are carried out as required by workplace requirements |
| | 1.7 Equipment performance is checked and adjusted as required |
| | 1.8 Equipment is ready and safe to operate |
| 2. Operate and monitor the packaging system | 2.1 The system is started up and operated according to company procedures |
| | 2.2 System equipment components are monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The system is monitored to confirm that packaging specifications are met |
| | 2.5 Out-of-specification product/packaging outcomes |

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| | |
|---|---|
| | are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| 3. Handover packaging system operation | 3.1 Workplace records are maintained according to workplace recording requirements |
| | 3.2 Handover is carried out according to workplace procedures |
| | 3.3 Process operators are aware of system and related equipment status at completion of handover |
| 4. Shut down the packaging system | 4.1 The appropriate shut down procedure is identified |
| | 4.2 The system is shut down according to workplace procedures |
| | 4.3 Maintenance requirements are identified and reported |
| 5. Contribute to continuous improvement of the system | 5.1 System performance is reviewed against output plan/targets |
| | 5.2 Opportunities for system improvement are identified and investigated |
| | 5.3 Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

– Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP

– Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, performance records and reports

- A system typically involves a series of inter-related processes that must be co-ordinated and concurrently operated to produce the required outcome
- System operation may involve co-ordination of operators of system components
- Handovers may be done in person or via recording/communication systems according to workplace arrangements
- Operation and monitoring of equipment and system processes typically requires the use of control panels and systems
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access production/packaging schedule and related information to identify packaging output and operating requirements. This may involve establishing daily packaging priorities and/or modifying plans to respond to customer requirements
2. Liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements
3. Confirm supply of necessary equipment and related attachments, materials and services
4. Select, fit and use personal protective clothing and/or equipment
5. Set and/or adjust equipment to meet packaging requirements. This includes inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lockouts are cancelled as required, confirming that equipment is clean, correctly configured for packaging requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational. Checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks
6. Load and/or position product, packaging components and consumables as required
7. Operate and monitor the packaging system. This may involve use of a process control system and/or observing/supporting others to follow correct operating procedures
8. Monitor materials flow and work-in-progress to and from the packaging system
9. Confirm that the packaging system operates within specified parameters and inspection/ control points are monitored
10. Determine responses to out-of-specification packaging or non-conformance within level of responsibility

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11. Monitor operating efficiencies of the system and investigate, resolve and/or report problems
12. Plan scheduled events to minimise disruption to production
13. Conduct/co-ordinate product/packaging changeovers
14. Conduct/co-ordinate shift handovers
15. Review and maintain procedures to support system improvements
16. Maintain work area to meet housekeeping standards

**Knowledge of:**

17. Purpose and basic principles of the packaging system. This includes an understanding of the process flow and the inter-relationships of each previous processes that can affect packaging outcomes, packaging technology, packaging equipment components
18. Basic operating principles of equipment and related accessories used by the system. This includes a knowledge of equipment adjustment points, status and purpose of guards, range and location/alignment requirements of sensors and related feedback instruments
19. Operating capacities of equipment used in the system. This may include an awareness of different types of equipment and/or components as required by processing/packaging operations
20. Understanding of related systems and responsibilities for interaction. These typically include related production and further packaging/storage stages, services supply, maintenance, laboratory/quality assurance and planning and scheduling
21. Technical knowledge of product/packaging characteristics and the main factors that impact on shelf life
22. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
23. Relevant procedures, specifications and operating parameters for the system and the individual processes
24. Isolation, lock out and tag out procedures and responsibilities
25. Hazards, risks, controls and methods for monitoring processes within the system. This includes health and safety, food safety, quality and environmental hazards and risks
26. Workplace system and approach to equipment maintenance
27. Process improvement procedures and related consultative arrangements
28. Troubleshooting procedures and problem solving techniques
29. Communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues
30. Procedures and responsibility for reporting production and performance information

**Relationship with other standards**
*Pre-requisite units*

At least two specialist units at AQF 2, relevant to the system operated are pre-requisites for this unit except where this unit is applied to a Plant Baking or Retail Baking qualification where no pre-requisite units from AQF 2 apply.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface

– FDFOPTSM3A Support and mentor individuals and groups

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment

– Production schedule and related advice on system requirements

– Information on equipment capacity and operating parameters

– Packaging system equipment and related accessories and services

– Product, packaging components and consumables as required by the process

– Communication and recording systems and procedures

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPREX2A Operate an extrusion process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down an extrusion process. This unit refers to both wet and dry extrusion processes.

| Element | Performance criteria |
|---|---|
| 1. Prepare the extrusion equipment and process for operation | 1.1 Materials are confirmed and available to meet operating requirements |
| | 1.2 Machine components and related attachments are selected and fitted to meet operating requirements |
| | 1.3 Processing/operating parameters are entered as required to meet safety and production requirements |
| | 1.4 Equipment performance is checked and adjusted as required |
| | 1.5 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the extrusion process | 2.1 Ingredients and additives are delivered to the extrusion process in the required quantities and sequence |
| | 2.2 Preparation of the mass is monitored to confirm that specifications are met and mass is suitable for extrusion |
| | 2.3 The extrusion process is operated according to workplace procedures |
| | 2.4 Equipment is monitored to identify variation in operating conditions |
| | 2.5 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.6 The extruded product is monitored to confirm that specifications are met |
| | 2.7 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |

| | |
|---|---|
| | 2.8 Workplace housekeeping standards are maintained |
| | 2.9 Workplace records are maintained according to workplace recording requirements |
| 3. Shut down the extrusion process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to the industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Australian Food Standards Code and reference to food safety is replaced by GMP
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- The extrusion process typically includes feeding/dosing, conditioning/cooking, mixing, extruding, drying and cooling. It may also involve screening/sieving, a final additive addition stage and further processing such as sheeting or aeration according to product type
- Extrusion equipment may include ingredients handling and addition equipment, mixers, conditioners, cookers, dryers and coolers. Some systems may also include expanders, oil coating systems, screens and sieves and sheeting, cutting/stamping equipment, tray feeders/take off and stackers
- Operation of equipment and processes may require the use of process control panels and systems
- Operators carry out changeovers within workplace arrangements and the relevant changeover procedures should be used to customise the details of this unit. Where more detailed changeovers are carried out, also refer to FDFOPTCRM2A Conduct routine maintenance

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– Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

– Services may need to be confirmed. These depend on the nature of the process. Typical examples include power, steam, water, vacuum, compressed and instrumentation air

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify processing requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials/ingredients and services
4. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear, selecting and fitting appropriate attachments where required, setting processing parameters; cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
5. Start, operate, monitor and adjust process equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required at each stage of the extrusion process to confirm process remains within specification. It may also involve monitoring parameters such as throughput, and load/work input as measured by rpm (revs per minute), kilowatts, amps and/or Hz (hertz) at each stage of the process
6. Monitor supply of materials to and from the extrusion process
7. Take corrective action in response to out-of-specification results
8. Respond to and/or report equipment failure within level of responsibility
9. Locate emergency stop functions on equipment
10. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
11. Demonstrate batch/product changeovers
12. Complete workplace records as required
13. Maintain work area to meet housekeeping standards

*May include ability to:*

14. Use process control systems
15. Conduct routine maintenance
16. Collect samples and conduct tests

17. Clean and sanitize equipment

**Knowledge of:**

18. Purpose and basic principles of each part of the process. This includes an understanding of the purpose and methods used to achieve each stage of the extrusion process
19. Basic operating principles of equipment. This may include an operational understanding of main equipment components and status and purpose of guards, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation. It also includes knowledge of services required and action to take if services are not available
20. The flow of the extrusion process and the effect of outputs on downstream processes
21. Quality characteristics of extruded output. This may include:
    - required characteristics of mass or blend to be extruded such as gelatinisation and viscosity
    - dimensions, texture and hardness of extruded product
    - moisture content
22. Effect of variation in inputs and/or services on process performance
23. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters. This includes an understanding of the effect of variation in key variables such as:
    - throughput and work input at each stage of the process
    - effect of time and temperature
    - barrel pressures and temperatures at each zone
24. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems such as screw and barrel assembly wear, die plate wear, wear of conditioner paddles and extruder knife condition
25. Methods used to monitor the extrusion process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
26. Common causes of variation and corrective action required
27. Contamination risks related to the extrusion process and related control measures
28. OHS hazards and controls
29. Requirements of different shut downs as appropriate to the process and workplace production/packaging requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
30. Product/process changeover procedures and responsibilities
31. Isolation, lock out and tag out procedures and responsibilities

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32. Procedures and responsibility for reporting production and performance information
33. Environmental issues and controls relevant to the extrusion process. This includes waste/rework collection and handling procedures related to the process

*May include knowledge of:*

34. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
35. Sampling and testing associated with process monitoring and control
36. Routine maintenance procedures
37. Cleaning and sanitation procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface
– FDFOPTISPA Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2A Conduct routine maintenance
– FDFZCSCIP2A Clean equipment in place
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment
– Work procedures including advice on safe work practices, food safety, quality and environmental requirements
– Information on equipment capacity and operating parameters
– Production schedule/batch instructions
– Specifications, control points and processing parameters
– Extrusion and related equipment and services
– Ingredients/blend/mass to be extruded
– Sampling schedules and test procedures and equipment as required

– Documentation and recording requirements and procedures

– Cleaning procedures, materials and equipment as required

**Assessment requirements**

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPRMP1A Monitor process operation

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to monitor and operate equipment.

| Element | Performance criteria |
|---|---|
| 1. Monitor equipment operation | 1.1 Equipment is inspected and monitored to confirm safety and operating condition |
| | 1.2 The process is monitored to confirm performance is maintained within specification |
| | 1.3 Materials / consumables levels are maintained as required |
| | 1.4 Workplace records are maintained in accordance with workplace requirements |
| | 1.5 Housekeeping standards in the work area are maintained |
| 2. Identify and respond to non-conformance | 2.1 Out-of-specification product, process and equipment performance is identified rectified and/or reported according to workplace procedures |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

– Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements. When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP

– Workplace information may include work instructions/operating procedures (SOPs), specifications, production schedules, labels and codes, safety signs and symbols, materials safety data sheets (MSDSs), standard forms, verbal messages, requests or instructions

– When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP

– Process operation and monitoring functions may involve the use of computer keyboard or control panel

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Select, fit and use appropriate personal protection clothing and/or equipment
2. Monitor the process and equipment operation to maintain the process within the required parameters. This may involve conducting visual inspections and basic tests
3. Monitor supply and flow of materials and/or consumables to and from the process. This may include replenishing material inputs and removing processed materials or product
4. Identify and take action to correct out-of-specification results within level of responsibility. Where corrective action is outside level of responsibility, report to appropriate personnel
5. Maintain work area to meet housekeeping standards

*May include ability to:*

6. Sort, collect, treat, recycle or dispose of waste
7. Demonstrate shut down and cleaning sequence
8. Record workplace information

**Knowledge of:**

9. Purpose of equipment
10. Required output and quality requirements to be met by the process
11. Basic operating principles of equipment used. This may include an operational understanding of main equipment components, status and purpose of guards, emergency stop, isolation and lockout controls. It may also include an understanding of the operating features of the control panel and the relationship between control panel functions and the physical equipment
12. Common causes of faults or unacceptable performance and action required within level of responsibility
13. Procedures and responsibility for reporting problems
14. OHS hazards and controls
15. Waste handling requirements and procedures related to process operation

*May include knowledge of:*

16. Shut-down and cleaning procedure
17. Recording system and responsibilities

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**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. Resources required for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

– Work procedures including advice on safe work practices

– Production schedules and specifications

– Materials data safety sheets where appropriate

– Production/packaging equipment and related services

– Materials and consumables as required

– Relevant OHS clothing and equipment

– Housekeeping standards and procedures

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FDFZPRBE1A Operate basic equipment

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to use equipment requiring limited application of equipment and process knowledge and limited equipment adjustment. This unit is generic and should be customised for a given piece of equipment.

| Element | Performance criteria |
|---|---|
| 1. Follow workplace procedures to operate equipment | 1.1 Checks are conducted to confirm equipment is ready and safe to operate |
| | 1.2 Operating procedures are followed to start and operate equipment to achieve required outcome |
| 2. Monitor and complete equipment operation | 2.1 Equipment is monitored to identify variation in operating conditions |
| | 2.2 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.3 Equipment is shut down according to workplace procedure |
| | 2.4 The workplace meets housekeeping standards |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements. When applied to the pharmaceutical industry, relevant GMP codes apply and reference to food safety is replaced by GMP
- Workplace information may include work instructions/operating procedures (SOPs), specifications, production schedules, labels and codes, safety signs and symbols, materials safety data sheets (MSDSs), standard forms, verbal messages, requests or instructions
- Operation of equipment and processes may require the use of simple operating panels
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew

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## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information on equipment operating requirements and procedures
2. Select, fit and use personal protective clothing and/or equipment
3. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and all safety guards are in place and operational
4. Start and operate equipment according to procedure
5. Monitor the output of equipment operation against requirements
6. Take corrective action in response to out-of-specification results
7. Shut down and clean equipment as required
8. Respond to and/or report equipment failure within level of responsibility
9. Locate emergency stop functions on equipment
10. Maintain work area to meet housekeeping standards

*May include ability to:*

11. Use basic process control screens and panels
12. Complete workplace records

**Knowledge of:**

13. Basic operating principles of equipment used. This may include an operational understanding of main equipment components, status and purpose of guards, emergency stop, isolation and lockout controls, equipment operating capacities and applications and a knowledge of services required and action to take if services are not available
14. Quality requirements of materials/consumables used and the effect of variation on outputs
15. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters
16. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
17. Contamination/food safety risks associated with equipment operation and related control measures
18. Common causes of variation and corrective action required
19. OHS hazards and controls
20. Shutdown and cleaning procedures. This includes awareness of isolation, lock out and tag out procedures and responsibilities

21. Environmental issues and controls relevant to equipment operation. This includes waste collection and handling procedures related to the process

*May include knowledge of:*

22. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment

23. Recording procedures and responsibilities

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment

– Work procedures including advice on safe work practices, food safety, quality and environmental requirements

– Item of equipment to be operated and relevant materials, consumables and services

– Workplace records as required

– Cleaning procedures, materials and equipment as required

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFZPRIPK3A Apply raw materials/ingredient and process knowledge

**Unit descriptor**

This is a Specialist unit. It covers skills and knowledge required to apply knowledge of ingredients and processes to troubleshoot typical problems that occur in preparation, processing and/or packaging product. This unit applies where problem solving occurs over one or more processes and requires an understanding of the characteristics of raw materials/ingredients and processing methods used.

| Element | Performance criteria |
|---|---|
| 1. Identify and respond to non-conforming ingredients/raw materials | 1.1 Non-conformance in raw materials/ingredients is identified and reported according to workplace reporting requirements |
| | 1.2 Causes of non-conformance are investigated and reported according to workplace reporting requirements |
| | 1.3 Corrective action is determined and implemented within level of responsibility and workplace procedures |
| | 1.4 Action is taken to prevent reoccurrence of non-conformance |
| | 1.5 Action is reported according to workplace reporting requirements |
| 2. Identify and respond to non-conforming product and processes | 2.1 Processing parameters, stages and changes which occur during processing are monitored |
| | 2.2 Non-conformance in processing, handling and/or storage is identified and corrective action taken according to workplace requirements |
| | 2.3 Causes of non-conformance relating to processing, handling and/or storage are investigated and reported according to workplace reporting requirements |
| | 2.4 Corrective action is determined and implemented within level of responsibility and workplace procedures |
| | 2.5 Action is taken to prevent reoccurrence of non-conformance |
| | 2.6 Action is reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements.
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity. When applied to the pharmaceutical industry, relevant GMP codes apply in place of the Food Standards Code and reference to food safety is replaced by GMP
- Ingredients/raw materials are those used to manufacture product
- Typical processing and related techniques include but are not limited to raw materials/ingredient dispensing, preparation, mixing and blending, conditioning, primary and further processing, wrapping, packing and storage
- Typical process parameters include but are not limited to temperature, time, pressure, flow rate
- Typical reactions depend on processing method. Examples include but are not limited to gelatinisation and hydration
- Where recurrence of a problem cannot be prevented, procedures should be established to minimise the likelihood of recurrence and to identify any further incidents

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Identify requirements of ingredient/raw material characteristics within level of responsibility
2. Follow procedures to identify, remove/isolate and report non-conforming ingredients/materials and/or product according to workplace reporting requirements
3. Determine likely causes of non-conformance of ingredients/raw materials
4. Recognise indicators of unacceptable or non-conforming processing, handling and/or storage outcomes
5. Act promptly to identify, remove/isolate and report non-conforming product and/or processes
6. Access and apply workplace information relating to process troubleshooting
7. Investigate non-conformance to determine likely causes and report findings to appropriate personnel

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8. Identify action required to correct non conformance and implement within level of responsibility
9. Identify action required to prevent or minimise and control reoccurrence of non-conformance and implement within level of responsibility
10. Complete workplace records including reporting non-conformance and documenting corrective actions according to workplace recording procedures

*May include ability to:*

11. Conduct tests to confirm raw material/ingredient and/or final product quality characteristics

**Knowledge of:**

12. Basic composition and function of each main material/ingredient used. This may include awareness of ingredient grades or types
13. Common causes of contamination/unacceptable quality of raw materials/ ingredients
14. Methods used to confirm quality standard. This may include accessing information such as Certificates of analysis and/or laboratory clearance information
15. The effect of variation in raw materials/ingredients on processing stages and final product outcome. This includes an understanding of factors likely to cause variation and scope to adjust or correct for variation at each processing stage
16. Appropriate handling and storage requirements for raw materials/ingredients and final product and the effect of failing to meet required storage conditions
17. The changes and reactions that occur through processing stages. This includes an understanding of the signs and symptoms of poor/unacceptable processing or equipment operation
18. Factors that affect the shelf life of product
19. The inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product. This includes understanding of factors likely to cause variation and scope to adjust or correct for variation at subsequent process stages
20. Procedures for identifying and isolating non-conforming product
21. Troubleshooting information and techniques
22. Procedures and related documentation required to amend or introduce a new method or procedure. This may include short term procedures for amending or updating specifications and processing parameters
23. Reporting requirements and responsibilities

*May include knowledge of:*

24. Test methods to confirm raw material/ingredient and/or final product quality characteristics

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

- FDFOPTISP2A Implement sampling procedures
- PMLTEST300A Perform basic tests
- FDFOPTRWP3A Report on workplace performance
- PMBQUAL390A Solve problems using 'quality tools'

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

- Ingredient/raw materials specifications and related advice such as Certificates of analysis
- Ingredients/raw materials and final product and related processing equipment and stores areas
- Troubleshooting information relevant to workplace processes
- Sampling and test equipment and procedures as required
- System for managing and updating workplace documents such as Standard Operating Procedures and log sheets/processing parameters
- Reporting and recording system and procedures

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

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# FDFFVFP2B Operate a freezing process

**Unit descriptor**

This is a Specialist unit. It covers the skills and knowledge required to set up, operate, adjust and shut down a freezing process.

| Element | Performance criteria |
|---|---|
| 1. Prepare the freezing process for operation | 1.1 Materials are confirmed and available to meet operating requirements |
| | 1.2 Cleaning and maintenance requirements and status are identified and confirmed |
| | 1.3 Machine components and related attachments are fitted and adjusted to meet operating requirements |
| | 1.4 Processing/operating parameters are entered as required to meet safety and production requirements |
| | 1.5 Equipment performance is checked and adjusted as required |
| | 1.6 Pre-start checks are carried out as required by workplace requirements |
| 2. Operate and monitor the freezing process | 2.1 The process is started and operated according to workplace procedures |
| | 2.2 Equipment is monitored to identify variation in operating conditions |
| | 2.3 Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements |
| | 2.4 The process is monitored to confirm that specifications are met |
| | 2.5 Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification |
| | 2.6 The workplace meets housekeeping standards |
| | 2.7 Workplace records are maintained according to workplace recording requirements |

| | |
|---|---|
| 3. Shut down the freezing process | 3.1 The appropriate shut down procedure is identified |
| | 3.2 The process is shut down according to workplace procedures |
| | 3.3 Maintenance requirements are identified and reported according to workplace reporting requirements |

## Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
- Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes the Food Standards Code including labelling, weights and measures legislation and legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
- Workplace information may include Standard Operating Procedures (SOPs), specifications, production schedules and instructions, manufacturers' advice, standard forms and reports
- Freezing methods may include air freezing, contact freezing and cryogenic freezing
- Operation of equipment and processes may require the use of process control panels and systems
- Shut down procedures may include cleaning. In some cases cleaning may be carried out by a dedicated cleaning crew
- Services are appropriate to the process to be operated. Typical examples include power, steam, water, vacuum, compressed and instrumentation air

## Evidence guide

The assessment process must address all of the following items of evidence.

**Ability to:**

1. Access workplace information to identify processing requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Confirm supply of necessary materials and services
4. Prepare materials as required

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5. Conduct pre-start checks. This may involve inspecting equipment condition to identify any signs of wear; selecting appropriate settings and/or related parameters; cancelling isolation or lockouts as required, confirming that equipment is clean, correctly configured for processing requirements, sensors and controls are correctly positioned, any scheduled maintenance has been carried out and all safety guards are in place and operational
6. Start, operate, monitor and adjust the freezing process and equipment to achieve required outcomes. This may include monitoring control points and conducting inspections as required to confirm process remains within specification. This can involve monitoring:
   - tunnel and product temperatures
   - throughput
   - removal of frozen waste product from equipment
   - visually inspecting product
7. Monitor supply and flow of materials to and from the process
8. Take corrective action in response to out-of-specification results
9. Demonstrate procedure to defrost tunnels as required
10. Respond to and/or report equipment failure within level of responsibility
11. Locate emergency stop functions on equipment
12. Follow isolation and lock out/tag out procedures as required to take process and related equipment off line in preparation for cleaning and/or maintenance within level of responsibility
13. Complete workplace records as required
14. Maintain work area to meet housekeeping standards

*May include ability to:*

15. Use process control systems
16. Conduct product/batch changeovers
17. Collect samples and conduct tests
18. Conduct routine maintenance
19. Clean and sanitise equipment

**Knowledge of:**

20. Purpose and basic principles of freezing. This includes an understanding of the changes which occur to product during freezing
21. Basic operating principles of equipment. This may include an operational understanding of main equipment components, status and purpose of guards, basic principles and operation of refrigeration system, equipment operating capacities and applications and the purpose and location of sensors and related feedback instrumentation
22. The flow of this process and the effect of product output on downstream processes

23. Quality characteristics to be achieved by the freezing process
24. Effect of raw material characteristics on the freezing process
25. Operating requirements and parameters and corrective action required where operation is outside specified operating parameters
26. Typical equipment faults and related causes. This includes recognition of signs and symptoms of faulty equipment and early warning signs of potential problems
27. Methods used to monitor the production process. This may include inspecting, measuring and testing as required by the process. It requires awareness of inspection or test points (control points) in the process and the related procedures and recording requirements
28. Contamination/food safety risks associated with the process and related control measures
29. Common causes of variation and corrective action required
30. OHS hazards and controls. This includes awareness of the limitations of protective clothing and equipment relevant to the work process
31. Requirements of different shut downs as appropriate to the process and workplace production requirements. This includes emergency and routine shutdowns and procedures to follow in the event of a power outage
32. Isolation, lock out and tag out procedures and responsibilities
33. Procedures and responsibility for reporting production and performance information
34. Environmental issues and controls relevant to the process. This includes waste collection and handling procedures related to the process

*May include knowledge of:*

35. Basic operating principles of process control where relevant. This includes the relationship between control panels and systems and the physical equipment
36. Product/process changeover procedures and responsibilities
37. Sampling and testing associated with process monitoring and control
38. Routine maintenance procedures
39. Cleaning and sanitation procedures

**Relationship with other standards**
*Pre-requisite units*

There are no pre-requisite units for this competency standard.

*Co-assessment of related units*

This unit should be assessed together with core units and other units of competence relevant to the function or work role. In addition, the following optional or ancillary units may be relevant:

– FDFZPRCI2A Operate a process control interface

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– FDFOPTISP2A Implement sampling procedures
– PMLTEST300A Perform basic tests
– FDFOPTCRM2A Conduct routine maintenance
– FDFZCSCS2A Clean and sanitize equipment

**Resources required for assessment**
Assessment must occur in a real or simulated workplace where the assessee has access to:

– Personal protective clothing and equipment
– Work procedures including advice on safe work practices, food safety, quality and environmental requirements
– Production schedule and batch instructions
– Specifications, control points and processing parameters
– Information on equipment capacity and operating parameters
– Freezing process and related equipment and services
– Materials to be frozen
– Sampling schedules and test procedures and equipment as required
– Cleaning procedures, materials and equipment as required
– Documentation and recording requirements and procedures

**Assessment requirements**
For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

# FPIFG006A Extract Seed

## Description

This unit is concerned with extracting and processing seed using an extraction unit.

### Suggested Pre-Requisites/Co-Requisites

| | |
|---|---|
| FPI OHS1A | Follow defined Occupational Health & Safety policies and procedures |
| FPI G22 A | Plan to undertake a routine task |
| FPI G23 A | Plan a complete activity |
| FPI G41 A | Use basic hand held tools |

## 1 Receive seed bearing material into store

1.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
1.2 Species of seed bearing material is visually checked to ensure that the container label is correct.
1.3 All containers received are weighed and an identifier attached in accordance with organisational procedures.
1.4 All seed information required by organisational guidelines is recorded using the system designated by organisational procedures.
1.5 Material is placed for storage into a dry, well ventilated area.

## 2 Extract seed

2.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
2.2 Where automated extraction unit is used, seed bearing material is placed in/on extraction unit in accordance with organisational procedures and manufacturer's instructions.
2.3 Where automated extraction unit is used, it is operated safely in accordance with organisational guidelines.
2.4 Where automated extraction unit is used, its operation is monitored in accordance with manufacturer's instructions, organisational safety guidelines, and objective of the operation.
2.5 Agitation is undertaken to maximise yield, where required by the nature of the seed bearing material.
2.6 Seed capsules are inspected for un-extracted seed and reprocessed where necessary to ensure maximum yield.

## 3 Clean and store seed

3.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
3.2 Seeds are separated from other materials according to organisation requirements using available separation methods.
3.3 Cleaned seed is weighed using the specified scales and stored in accordance with organisational procedures and requirements of the species.
3.4 Seeds are treated in accordance with organisation requirements.

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3.5 Seed weight, place of origin, species, and container identifier are recorded in accordance with organisational procedures.
3.6 Seeds are packaged for storage according to legislative and organisation requirements, codes of practice and client requirements to protect the seeds and to maintain traceability to collection source.

## 4 Clean and maintain extraction unit

4.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
4.2 Residue materials are disposed of in accordance with organisational guidelines and environmental imperatives.
4.3 Extraction unit and operating area are cleaned to organisational guidelines and standards.
4.4 Extraction unit is maintained, serviced, and calibrated in accordance with manufacturer's instructions and organisational guidelines.

# Range of Variables

- Storage conditions must not allow humidity or wetness to occur, due to the incidence of fungus
- Scales used for weighing are currently under licence from the weights and measures authority
- Instructions and information may include organisation terminology; fault reports; internal memos
- Maintenance of records may include collation (of information or documentation); interpret information in a way relevant to workplace requirements; organise and maintain records accurately
- Systems may be electronic or manual
- Extraction units and equipment may include kilns operated by gas, solar, oil, or electricity; sieves of various sizes; air drying racks and trays
- Lifting devices may include overhead gantry; fork lift; conveyor belts; electronic/manual balance scales
- Recording system for seed information may include electronic data base; card index; data sheets; filing system
- Appropriateness of sieve for processing may depend on size of seed; quantity of seed; seed species
- Seed is weighed on properly calibrated and maintained scale
- Seed container identifiers may be alpha-numeric; bar coded; colour coded; symbols.

# Evidence Guide

## Critical underpinning knowledge

- Environmental requirements for extraction and storage of seed
- Occupational health and safety guidelines, procedures, and principles, including manual handling
- The need for accurate tracking of the seed's origin
- Hazards involved in seed extraction, processing and storage
- Seed extraction processes for native species
- Differences between extraction and storage requirements for different species
- Organisation specifications for the safe operation of the extraction unit.

## Critical underpinning skills

- Understand a variety of information styles
- Interpret information in a way relevant to workplace requirements
- Organise and maintain records accurately

- Identify a range of species from capsules
- Maintaining a clean working environment to prevent contamination of seed
- Adhere to quality control guidelines
- Record and calculate seed weights
- Use, amend and update organisational record keeping and tracking systems
- Work efficiently within the organisation's occupational health and safety procedures and guidelines.

## Assessment context

Competency should be demonstrated in an actual workplace or in a situation which reproduces workplace conditions.

# Key Competencies and Application to Standards

| Key Competency | Level | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| Collecting, analysing and organising information | • | | |
| Communicating ideas and information | • | | |
| Planning and organising activities | • | | |
| Working with others in teams | • | | |
| Using mathematical ideas and techniques | | • | |
| Solving problems | • | | |
| Using technology | • | | |

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# FPIFG008A Conduct seed collecting operations

## Description

This unit describes the work involved in the collection, treatment and storage of seed from forest species.

### Suggested Pre-Requisites/Co-Requisites

| | |
|---|---|
| FPI OHS1A | Follow defined Occupational Health & Safety policies and procedures |
| FPI G23 A | Plan a complete activity |
| FPI G41 A | Use basic hand held tools |
| FPI FGM 145 A | Work within environmental constraints |

## 1 Prepare to collect seed

1.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
1.2 Site environmental concerns are adhered to in accordance with relevant national, state, and local legislation and/or regulations.
1.3 Potential locations for the collection of required seeds are identified from organisation and public information, and site visits.
1.4 Permits are obtained to collect the seeds, according to legislative and organisation requirements.
1.5 Suitable seed collection seasons and times are identified to plan seed collection
1.6 Appropriate seed collection resources are obtained, according to organisation requirements.
1.7 Information on seed collection locations is kept in commercial confidence where required by the organisation.

## 2 Collect seed

2.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
2.2 Site environmental concerns are adhered to in accordance with relevant national, state, and local legislation and/or regulations.
2.3 Landowners, tenants, and other relevant authorities are approached to negotiate suitable seed collection arrangements.
2.4 Plant species and condition is identified in accordance with scientific practice to ensure healthy, virile seeds are collected.
2.5 Seeds are collected from a range of plants and from different areas of plants to maintain genetic diversity.
2.6 Seeds are collected using selected method in accordance with legislation, codes of practice, organisation requirements, conditions of permit and agreements with landholders, tenants and others.
2.7 Health of parent plants is protected during seed collection.
2.8 Seed is placed in clean containers and labelled to codes of practice, organisation requirements and to maintain location and genetic identity.

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# 3 Clean and store seed

3.1 Organisational occupational health and safety procedures, practices, policies, and precautions are observed and followed.
3.2 Seeds are separated from other materials according to organisation requirements using available separation methods.
3.3 Cleaned seed is weighed using the specified scales and stored in accordance with organisational procedures and requirements of the species.
3.4 Seeds are treated in accordance with organisation requirements.
3.5 Seed weight, place of origin, species, and container identifier are recorded in accordance with organisational procedures.
3.6 Seeds are packaged for storage according to legislative and organisation requirements, codes of practice and client requirements to protect the seeds and to maintain traceability to collection source.

# Range of Variables

- Potential locations are those places where the required species is growing or likely to grow
- Organisation and public information may include records of locations where seeds have been collected previously; personal knowledge within the organisation; information provided by contacts; vegetation maps and records
- Permits are those required for commercial or non-commercial seed collection, and may include government permits; landholder permits
- Seed collection seasons are those times when the species have fruit at the required condition
- Seed collection resources may include personnel; vehicles; pruning and shaking equipment; sheets/tarpaulins; clean containers for holding seeds; personal protective equipment; vacuum seed collecting machines; ladders/elevating work platforms
- Seed may be treated to remove pests and diseases; facilitate regeneration
- Other relevant authorities may include local governments; parks/reserves managers; forestry managers
- Health of parent plants may require hand picking; careful and selective pruning; information about regrowth habits of particular species
- Occupational health and safety issues may include assessment of hazards and risks in the seed collection and treatment processes; inspection and maintenance of equipment; following occupational health and safety administrative procedures; use of personal protective equipment; training in procedures and use of equipment; handling of minerals/chemicals used in the treatment of seed for storage
- Seed separation methods may include hand selection; wind separation/winnowing; sieving; vibrating; flotation; drying and crumbling of husks
- Seed treatment may include heat; mechanical; chemical protection against pests
- Seed packaging may include vacuum sealing; use of inert atmospheres such as nitrogen and carbon dioxide; control of packing environment (temperature, light, and moisture)
- Monitoring of seed quality may include viability tests under controlled conditions
- Method of collection may include collecting after falling/felling; ladders; climbing; shaking; high-powered rifles; cherry pickers.

# Evidence Guide

## Critical underpinning knowledge

- Relevant legislation and regulation requirements
- Occupational health and safety guidelines, procedures, and principles, including manual handling
- Growth patterns of species where seed is being collected
- Diseases and pests likely to infect the species.

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## Critical underpinning skills

- Plan seed collection processes
- Identify health of individual plants
- Recognise common diseases, pests, and nutrition deficiencies
- Use vehicles and equipment in a range of terrenes
- Use a range of seed collection methods and related equipment
- Use a range of cleaning methods and related equipment
- Organise and maintain information
- Negotiate and liaise with bodies/groups internal and external to the organisation.

## Critical aspects of evidence to be considered

- Where regulated work functions are being undertaken, appropriate licences or permits must be obtained.
- Competency is to be assessed in the critical aspects of:
  - ◊ Identification of species, collection seasons and methods and seed quality
  - ◊ Compliance with legislative and organisation requirements, including obtaining permits and permission to collect seeds
  - ◊ Occupational health and safety.

## Assessment context

Most components of this unit should be assessed in the workplace or simulated workplace using the appropriate range of equipment to collect a range of seeds and to apply a range of treatments.

Assessment of competency in this unit may be combined with other units at the request of person being assessed and where the assessor is able to plan combined opportunities for evidence gathering.

# Key Competencies and Application to Standards

| Key Competency | Level 1 | Level 2 | Level 3 |
|---|---|---|---|
| Collecting, analysing and organising information | | • | |
| Communicating ideas and information | | • | |
| Planning and organising activities | | • | |
| Working with others in teams | | • | |
| Using mathematical ideas and techniques | • | | |
| Solving problems | | • | |
| Using technology | • | | |

# FPIFGM147A Read and interpret maps

## Description

This unit is concerned with interpreting maps and plans for navigation in the forest.

### Suggested Pre-Requisites/Co-Requisites

| | |
|---|---|
| FPI OHS 1A | Follow defined occupational health & safety policies & procedures |
| FPI G20 A | Collect, analyse and organise information - basic |
| FPI G22 A | Plan to undertake a routine task |

## 1 Select traverse route

1.1 Current position in the field is located using landmarks and key geographical features.
1.2 Current position in the field is identified on map or plan in accordance with organisational procedures.
1.3 Required destination is identified on map or plan in accordance with organisational procedures.
1.4 Hazards and potential hazards in traversing from location to destination are recognised and interpreted from map or plan, field observations, and local knowledge.
1.5 Traverse route to destination is selected using information from map or plan and field observations.
1.6 Distance to required destination is estimated using map scale and selected traverse route.

## Range of Variables

- Map types may include cadastral, topographic and other organisational maps of varying scale
- Map features may include those normally found on maps of forested country used for general management and fire protection use such as roads, watercourses, quarries, water points, ramps and features specific to forestry such as plantation compartments.

## Evidence Guide

### Critical underpinning knowledge

- Uses of a range of maps and plans
- Representation of topographic features on maps and plans
- Common scales used on maps and plans
- Use and manipulation of scales.

### Critical underpinning skills

- Demonstrate use of map scale
- Explain meaning of map symbols and line types

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- Locate own position on a map
- Explain meaning of map meridian
- Read and record grid references
- Recognise map type and map features
- Interpret forest area detail
- Scale distances from map
- Recognise topographic map features.

## Assessment context

Competency should be demonstrated in an actual workplace or in a situation which reproduces workplace conditions.

# Key Competencies and Application to Standards

| Key Competency | Level | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| Collecting, analysing and organising information | • | | |
| Communicating ideas and information | | | |
| Planning and organising activities | • | | |
| Working with others in teams | | | |
| Using mathematical ideas and techniques | | | |
| Solving problems | | | |
| Using technology | | | |

# HLTFA1A Apply basic First Aid

## Unit Descriptor

This unit of competency deals with the provision of essential First Aid in recognising and responding to an emergency using basic life support measures. 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 is working under supervision and/or according to established workplace First Aid procedures and policies.

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| 1. Assess the situation | 1.1 Physical hazards to own and others' health and safety are identified |
| | 1.2 Immediate risk to self and health and safety of the casualty/OHS are minimised by controlling the hazard in accordance with OHS requirements |
| | 1.3 Casualty's vital signs and physical condition are assessed in accordance with workplace procedures |
| 2. Apply basic First Aid techniques | 2.1 First Aid management is provided in accordance with established First Aid procedures |
| | 2.2 Casualty is reassured in a caring and calm manner and made comfortable using available resources |
| | 2.3 First Aid assistance is sought from others in a timely manner and as appropriate |
| | 2.4 Casualty's condition is monitored and responded to in accordance with effective First Aid principles and workplace procedures |
| | 2.5 Details of casualty's physical condition, changes in conditions, management and response to management are accurately recorded in line with organisational procedures |
| | 2.6 Casualty management is finalised according to casualty's needs and First Aid principles |

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| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| 3. Communicate details of the incident | 3.1 Appropriate medical assistance is requested using relevant communication media and equipment |
| | 3.2 Details of casualty's condition and management activities are accurately conveyed to emergency services/relieving personnel |
| | 3.3 Reports to supervisors are prepared in a timely manner, presenting all relevant facts according to established company procedures |

## RANGE OF VARIABLES

The range of variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The range of variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| *First Aid management will need to account for:* | • Workplace policies and procedures<br>• Industry/site specific regulations, codes etc.<br>• OHS requirements<br>• State and territory workplace health and safety requirements<br>• Allergies the casualty may have |
| *Physical hazards may include:* | • Workplace hazards<br>• Environmental hazards<br>• Proximity of other people<br>• Hazards associated with the casualty management processes |
| *Risks may include:* | • Worksite equipment, machinery and substances<br>• Environmental risks<br>• Bodily fluids<br>• Risk of further injury to the casualty<br>• Risks associated with the proximity of other workers and bystanders |

## RANGE OF VARIABLES

| | |
|---|---|
| *Casualty's condition is managed for:* | • Abdominal injuries<br>• Allergic reactions<br>• Bleeding<br>• Burns - thermal, chemical, friction, electrical<br>• Cardiac conditions<br>• Chemical contamination<br>• Cold injuries<br>• Crush injuries<br>• Dislocations<br>• Drowning<br>• Envenomation - snake, spider, insect and marine bites<br>• Environmental conditions such as hypothermia, dehydration, heat stroke<br>• Epilepsy, diabetes, asthma and other medical conditions<br>• Eye injuries<br>• Fractures<br>• Head injuries<br>• Minor skin injuries<br>• Neck and spinal injuries<br>• Needle stick injuries<br>• Poisoning and toxic substances<br>• Respiratory management of asthma and/or choking<br>• Shock<br>• Smoke inhalation<br>• Soft tissue injuries including sprains, strains, dislocations<br>• Substance abuse - including drugs<br>• Unconsciousness including not breathing and no pulse |
| *First Aid management will need to account for:* | • Location and nature of the workplace<br>• Environmental conditions eg electricity, biological risks, weather, motor vehicle accidents<br>• Location of emergency services personnel |

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## RANGE OF VARIABLES

| | |
|---|---|
| | • Use and availability of First Aid equipment and resources<br>• Infection control |
| *Medications may include:* | • Asthma–aerosol bronchodilators casualty's own or from First Aid kit in accordance with state and territory legislation<br>• Severe allergic reactions–adrenaline–subject to casualty's own regime |
| *Resources and equipment are used appropriate to the risk and may include:* | • Defibrillation units<br>• Pressure bandages<br>• Thermometers<br>• First Aid kit<br>• Eyewash<br>• Thermal blankets<br>• Pocket face masks<br>• Rubber gloves<br>• Dressing<br>• Spacer device<br>• Cervical collars |
| *Communication systems may include but are not be limited to:* | • Mobile phone<br>• Satellite phones<br>• HF/VHF radio<br>• Flags<br>• Flares<br>• Two-way radio<br>• Email<br>• Electronic equipment |
| *Vital signs include:* | • Breathing<br>• Circulation<br>• Consciousness |
| *Established First Aid principles include:* | • Checking the site for danger to self, casualty and others and minimising the danger<br>• Checking and maintaining the casualty's airway, breathing and circulation |

## EVIDENCE GUIDE

*Context of assessment:*

Competence may be demonstrated working individually, under supervision or as part of a First Aid team.

Where applicable, assessment should replicate workplace conditions as far as possible. Where, for reasons of safety, access to equipment and resources and space, assessment takes place away from the workplace, simulations should be used to represent workplace conditions as closely as possible. Consistency of performance should be maintained over the required range of workplace situations until renewal of competence /license is required by the industry/organisation.

*Interdependence of units:*

Competency in this unit underpins competency in other aspects of providing workplace First Aid. It may be appropriate to assess parts of this unit in conjunction with other First Aid units of competency.

This unit is a prerequisite for HLTFA2A Apply advanced First Aid.

Evidence of competency may be gathered from other First Aid units of competency. Competence may be assessed in conjunction with other industry units of competency such as:

- OHS
- Risk assessment
- Emergency procedures

*The following knowledge should be demonstrated in assessment:*

- Basic anatomy and physiology
- Company standard operating procedures (sops)
- Dealing with confidentiality
- Knowledge of the First Aiders' skills and limitations
- OHS legislation and regulations
- How to gain access to and interpret material safety data sheets (msdss)

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## EVIDENCE GUIDE

*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
- State and territory regulatory requirements relating to currency of skill and knowledge
- Decision making
- Infection control
- Legal requirements
- Airway management
- Assertiveness skills
- Communication skills

# LGACOM502B Devise and conduct community consultations

## Unit descriptor

This unit covers devising and conducting community consultations and reporting on results. The vital and unique responsibility councils have to engage and consult with communities in order to respond to the needs of the community in a timely and effective manner is recognised.

## Application of the competency

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

| 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. If ***bold italicised*** text is used, details of the text are provided in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide. |
| **1 Devise consultation strategies** | 1.1 A range of consultation strategies is identified and assessed for suitability. |
| | 1.2 ***Interested and affected parties*** are identified. |
| | 1.3 ***Resources*** required to conduct consultation are assessed. |
| | 1.4 ***Consultation strategies*** are chosen that ***enable and encourage relevant groups*** or individuals to be involved. |
| | 1.5 ***Legislative*** and council requirements are reviewed to ensure strategies meet all criteria. |
| **2 Conduct consultations** | 2.1 ***Information*** is prepared that is clear, accurate and appropriate to the needs of all parties. |
| | 2.2 All people involved in conducting the consultations are briefed on the process of consultation and the parties involved. |
| | 2.3 Information is ***presented*** to affected parties at an appropriate time and place. |

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| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| | 2.4 ***Access and equity*** requirements are implemented in the consultations. |
| | 2.5 Measures to expedite community consultation are taken to ensure consultation occurs within an identified time frame. |
| | 2.6 Consultation is undertaken in an orderly manner to ensure all viewpoints are canvassed. |
| **3 Record, analyse and report on results** | 3.1 Public consultation responses and processes are formatted to enable informed decision making to proceed. |
| | 3.2 Appropriate suggestions for improvement are incorporated into design parameters. |
| | 3.3 Summaries of responses and adopted amendments are provided to interested parties to ensure public consultation is recognised. |
| | 3.4 Other issues raised during consultation are directed to relevant department or person to respond to community concern. |
| | 3.5 An accurate report on community consultation that includes recommendations is prepared to enable informed decision making to occur. |
| | 3.6 The overall effectiveness of the consultation process is reviewed and evaluated and action is taken where necessary. |

# RANGE STATEMENT

| Variable | Scope |
|---|---|

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that will affect performance.

The following variables may be present with training and assessment depending on the work situation, needs of the trainee, accessibility of the item, and local industry and regional contexts. If ***bold italicised*** text is shown in Performance Criteria, details of the text are provided in the Range Statement.

***Access and equity*** may include:

- subject matter
- manner in which consultations are conducted
- physical accessibility
- community profile.

***Enabling and encouraging relevant groups*** to be involved may include:

- physical accessibility
- diverse language needs
- culture, including Indigenous, youth and non-English speaking background
- physical environment
- number of people.

***Information*** may include:

- written and oral records
- anecdotes
- reports
- instructions
- directions from supervisor or management
- interviews
- formal and informal team meetings.

***Interested and affected parties*** may include:

- community groups
- other authorities
- individuals
- emergency authorities (police, fire and ambulance)
- private sector business interests
- special interest groups

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## RANGE STATEMENT

| Variable | Scope |
|---|---|
| | • experts. |
| ***Resources*** may include: | • human<br>• financial<br>• locations. |
| ***Consultation strategies*** may include: | • public meetings<br>• phone-ins<br>• questionnaires<br>• informal gatherings<br>• door knocks<br>• council meetings. |
| ***Legislation*** may include: | • local government<br>• anti-discrimination<br>• planning. |
| ***Presentation*** of information may include: | • graphics<br>• models<br>• computer animations<br>• video displays<br>• overhead transparencies<br>• handouts<br>• display plans<br>• interpreter service. |

# EVIDENCE GUIDE

The Evidence Guide describes the underpinning knowledge and skills that must be demonstrated to prove competence. It provides essential advice for assessment of the unit of competency and must be read in conjunction with the Performance Criteria, the Range Statement and the Assessment Guidelines of the relevant Training Package.

## Overview of assessment requirements

A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.

**Critical aspects of evidence to be considered**

The demonstrated ability to devise and conduct community consultations where:

- consultation ensures council's image or reputation is maintained or enhanced
- community consultation produces valid and useful information.

**Context of assessment**

Assessment of performance requirements in this unit should be undertaken within the context of the local government framework. Competency is demonstrated by performance of all stated criteria, including the Range of Variables applicable to the workplace environment.

**Relationship to other units** (prerequisite or co-requisite units)

Prerequisite units: nil.

Co-requisite units: nil.

**Method of assessment**

The following assessment methods are suggested:

- observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies
- written and/or oral questioning to assess knowledge and understanding
- completion of workplace documentation
- third-party reports from experienced practitioners
- completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor.

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## EVIDENCE GUIDE

| | |
|---|---|
| **Evidence required for demonstration of consistent performance** | Evidence should be gathered over a period of time in a range of actual or simulated management environments. |
| **Required knowledge:** | • relevant council policies and procedures<br>• relevant legislation, including planning and anti-discrimination<br>• relevant sections of local government act<br>• access and equity issues<br>• strategies for consultation<br>• codes of conduct and ethics. |
| **Required skills:** | • consultation, presentation, negotiation and report writing<br>• research<br>• planning and organising<br>• information gathering and analysis. |
| **Resource implications** | Access to a range of real or simulated consultation processes including:<br>• public and community meetings and forums<br>• surveys and door knocks<br>• appropriate communications equipment and aids such as overhead projectors and computer-based presentations. |

## Key competencies

The seven key competencies represent generic skills considered necessary for effective work participation. The numbering against each of the key competencies indicates the performance level required in this unit.

Level 1 represents the competence to undertake tasks effectively.

Level 2 represents the competence to manage tasks.

Level 3 represents the competence to use concepts for evaluating and reshaping tasks.

| Key competency | Level | Example |
|---|---|---|
| **Collect, analyse and organise information** | 3 | work according to documented plans, work procedures or council database administration |

| | | |
|---|---|---|
| **Communicate ideas and information** | 3 | communicate work requirements to relevant staff or respond to queries from community members |
| **Plan and organise activities** | 3 | construct or maintain work activities according to plans and programs |
| **Work with others and in teams** | 3 | liaise with relevant personnel |
| **Use mathematical ideas and techniques** | 2 | measure and calculate quantities or compile spreadsheets |
| **Solve problems** | 3 | make adjustments to suit needs or respond to community member queries and deliver quality customer service |
| **Use technology** | 2 | use appropriate technology such as personal computers or pre-test equipment in the performance of duties |

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MEM 18.1A B Use hand tools 

# MEM 18.1A B Use hand tools

**Band – Specialisation band A** **Field – Maintenance & diagnostics** **Unit Weight 2**

## Element 18.1A.1 Use hand tools

| | | |
|---|---|---|
| **Criteria 18.1A.1.1**<br>Appropriate hand tools selected according to the task requirements. | *Assessor guide: observe that –*<br>The appropriate hand tools are selected in accordance with the task requirements. | *Assessor guide: confirm that –*<br>The task(s) to be performed can be identified. The appropriate hand tools for the task(s) to be erformed can be selected from a range of hand tools provided. The reasons for selecting the chosen hand tools can be explained. |
| **Criteria 18.1A.1.2**<br>Hand tools used to produce desired outcomes to job specifications which may include finish, tension, size or shape. | *Assessor guide: observe that –*<br>The appropriate hand tools are used to produce the desired outcomes to job specifications. | *Assessor guide: confirm that –*<br>The outcomes to be achieved by the use of hand tools can be identified. The job specifications to be achieved by the use of hand tools can be identified. |
| **Criteria 18.1A.1.3**<br>All safety requirements are adhered to before, during and and after use. | *Assessor guide: observe that –*<br>All safety procedures are followed at all times and appropriate personal protective clothing and safety equipment are used. | *Assessor guide: confirm that –*<br>The safety procedures to be followed before, during after the use of hand tools can be identified. The personal protective clothing and safety equipment to be used when using hand tools can be identified. |
| **Criteria 18.1A.1.4**<br>Unsafe or faulty tools identified and marked for repair according to designated procedures before, during and after use. | *Assessor guide: observe that –*<br>Where appropriate, unsafe or faulty tools identified before, during or after use are marked for repair in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>Common faults and/or defects in hand tools can be identified. The procedures for marking unsafe or faulty tools for repair can be given. |

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MEM 18.1A B Use hand tools 

| | | |
|---|---|---|
| **Criteria 18.1A.1.5**<br>Routine maintenance of tools, including hand sharpening undertaken according to standard operational procedures, principles and techniques. | *Assessor guide: observe that –*<br>Where appropriate, hand tools are maintained/sharpened using appropriate techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The routine maintenance requirements of a range of hand tools can be identified. The procedures for maintaining/sharpening a range of hand tools can be identified. The techniques to be used in maintaining/sharpening a range of hand tools can be identified. |
| **Criteria 18.1A.1.6**<br>Hand tools are stored safely in appropriate location according to standard operational procedures and manufacturer's recommendations. | *Assessor guide: observe that –*<br>All hand tools are safely stored in the appropriate location in accordance with manufacturer's/standard operating procedures. | *Assessor guide: confirm that –*<br>The storage location of a range of hand tools can be identified. The procedures for storing a range of hand tools can be identified. |

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MEM 18.1A B Use hand tools 

## Range statement

Work undertaken autonomously or in a team environment using predetermined standards of quality, safety and workshop procedures involving the use of various hand tools, including but not limited to hacksaws, hammers, punches, screwdrivers, sockets, wrenches, scrapers, chisels, gouges, wood planes and files of all cross-sectional shapes and types. 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. Routine maintenance tasks may include cleaning, lubricating, tightening, simple tool repairs, hand sharpening and adjustments using engineering principles, tools, equipment and procedures. 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. For using power tools used for hand held operations see Unit 18.2A (Use power tools/hand held operations).

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the use of hand tools or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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MEM 18.2A A Use power tools/hand held operations 

# MEM 18.2A A Use power tools/hand held operations

**Band – Specialisation band A** **Field – Maintenance & diagnostics** **Unit Weight 2**

## Element 18.2A.1 Use power tools

| | | |
|---|---|---|
| **Criteria 18.2A.1.1**<br>Appropriate power tools selected according to the task requirements. | *Assessor guide: observe that –*<br>The appropriate power tools are selected in accordance with the task requirements. | *Assessor guide: confirm that –*<br>The task(s) to be performed can be identified. The appropriate power tools for the task(s) to be performed can be selected from a range of power tools provided. The reasons for selecting the chosen power tools can be explained. |
| **Criteria 18.2A.1.2**<br>Power tools used following 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. | *Assessor guide: observe that –*<br>The appropriate power tools are used to produce the desired outcomes to job specifications. Where appropriate, workpiece is clamped in accordance with standard operating procedures. Where appropriate, the power tool is aligned and adjusted to achieve the desired outcome. | *Assessor guide: confirm that –*<br>The outcomes to be achieved by the use of power tools can be identified. The job specifications to be achieved by the use of power tools can be identified. The need to secure workpieces when using power tools can be explained. A range of clamping/securing devices and their application can be identified. The adjustments that can be made to a range of power tools can be identified. The tools and procedures to be used in adjusting a range of power tools can be identified. The need to align power tools to achieve the required outcomes can be identified. |

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MEM 18.2A A Use power tools/hand held operations



| | | |
|---|---|---|
| **Criteria 18.2A.1.3**<br>All safety requirements are adhered to before, during and after use, | *Assessor guide: observe that –*<br>All safety procedures are followed at all times and appropriate personal protective clothing and safety equipment are used, | *Assessor guide: confirm that –*<br>The safety procedures to be followed before, during and after the use of power tools can be identified. The personal protective clothing and safety equipment to be used when using power tools can be identified. |
| **Criteria 18.2A.1.4**<br>Unsafe or faulty tools identified and marked for repair according to designated procedures before, during and after use. | *Assessor guide: observe that –*<br>Where appropriate, unsafe or faulty tools identified before, during or after use are marked for repair in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>Common faults and/or defects in power tools can be identified. The procedures for marking unsafe or faulty tools for repair can be given. |
| **Criteria 18.2A.1.5**<br>Operational maintenance of tools, including hand sharpening, undertaken according to standard workplace procedures, principles and techniques. | *Assessor guide: observe that –*<br>Where appropriate, power tools are maintained/sharpened using appropriate techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The operational maintenance requirements of a range of power tools can be identified. The procedures for maintaining/sharpening a range of power tools can be identified. The techniques to be used in maintaining/sharpening a range of power tools can be identified. |
| **Criteria 18.2A.1.6**<br>Power tools stored safely in appropriate location according to standard workshop procedure and manufacturer's recommendations. | *Assessor guide: observe that –*<br>All power tools are safely stored in the appropriate location in accordance with manufacturer's/ standard operating procedures. | *Assessor guide: confirm that –*<br>The storage location of a range of power tools can be identified. The procedures for storing a range of power tools can be identified. |

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MEM 18.2A A Use power tools/hand held operations 

## Range statement

Work undertaken autonomously or in a team environment using predetermined standards of quality, safety and workshop procedures involving the use of various power tools, including but not limited to electric or pneumatic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders. Applications may extend to loosening and fastening of items or components and the finishing, cutting, grinding of metallic and non-metallic materials and/or tool bits to size and shape. Routine maintenance tasks may include cleaning, lubricating, tightening, simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements. This unit should not be selected if the power tools used are dedicated to an operation or machine, ie. nut-runner, air drill, power driver etc. For using hand tools see Unit 18.1A (Use hand tools).

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the use of power tools in hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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MEM 2.5C11 A Measure with graduated devices 

# MEM 2.5C11 A Measure with graduated devices

**Band – Core** **Field – Core** **Unit Weight 2**

## Element 2.5C11.1 Use a range of graduated devices to measure/determine dimensions or variables

| | | |
|---|---|---|
| **Criteria 2.5C11.1.1**<br>Selects appropriate device or equipment to achieve required outcome. | *Assessor guide: observe that –*<br>The appropriate measuring device can be selected from a range of measuring devices for given measuring tasks. | *Assessor guide: confirm that –*<br>The correct application of a range of measuring devices can be identified. The reasons for selecting the chosen measuring device for each of a number of given measuring tasks can be given. |
| **Criteria 2.5C11.1.2**<br>Correct and appropriate measuring technique used. | *Assessor guide: observe that –*<br>For each measuring device selected the correct and appropriate measuring technique is used. | *Assessor guide: confirm that –*<br>The correct and appropriate measuring technique for a range of measuring devices can be identified. The consequences of not using the correct and appropriate measuring techniques for given measuring devices can be explained. |
| **Criteria 2.5C11.1.3**<br>Measures accurately to finest graduation of instrument. | *Assessor guide: observe that –*<br>All measurements taken are read accurately to the finest graduation of the selected measuring device. | *Assessor guide: confirm that –*<br>The accuracy to which a variety of measuring instruments can be read can be identified. The effect of using inappropriate measuring devices or measuring techniques on the accuracy of the measurements taken can be explained. |

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**Element 2.5C11.2 Maintain graduated devices**

| | | |
|---|---|---|
| **Criteria 2.5C11.2.1**<br>Routine care and storage of devices undertaken to manufacturer's specification or standard operating procedure. | *Assessor guide: observe that –*<br>All measuring devices are handled and stored in accordance with manufacturers' specifications or standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for handling and storing a range of measuring devices can be given. The effect of inappropriate use, handling and/or storage on the accuracy of measuring devices can be explained. |
| **Criteria 2.5C11.2.2**<br>Checks and makes routine adjustments to devices eg: "zeroing". | *Assessor guide: observe that –*<br>All measuring devices are checked for zero before use in accordance with standard operating procedures. Where appropriate, routine adjustments are made to measuring devices in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The routine adjustments that can be made to a range of measuring devices can be identified. The procedures for adjusting and zeroing a range of measuring devices can be given. The procedures for checking a range of measuring devices for accuracy and correct operation can be given. |

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MEM 2.5C11 A Measure with graduated devices 

## Range statement

Work undertaken autonomously or part of team environment. Work undertaken in field, work station, workshops. This unit covers measurement skills requiring straightforward application of the measuring device and may utilise the full range of graduations of measuring device. Examples may include measurements using verniers, feeler gauges, micrometers, dial indicators, thermometers, and similar graduated devices. Measurements undertaken may include: length, squareness, flatness, angle, roundness, clearances or any other measurements that can be read off analog, digital or other graduated device. Electrical/electronic devices used are those not requiring the connection or disconnection of circuitry. Measurements may include metric and imperial measurement. All measurements undertaken to standard operating procedures. Adjustment of measuring devices is through external means and includes zero and linear adjustment. For straightforward use of comparison or basic measuring devices Unit 12.1A (Use comparison and basic measuring devices) should be accessed.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the use of graduated measuring devices or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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MEM 5.12A B Perform routine manual metal arc welding 

# MEM 5.12A B Perform routine manual metal arc welding

**Band – Specialisation band A** **Field –Fabrication** **Unit Weight 2**

## Element 5.12A.1 Identify weld requirements

| | | |
|---|---|---|
| **Criteria 5.12A.1.1**<br>Weld requirements are identified from job instructions. | *Assessor guide: observe that –*<br>Appropriate instructions, specifications and drawings are obtained and weld requirements identified in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The weld requirements for performing routine MMAW can be given. |
| **Criteria 5.12A.1.2**<br>Location of welds are identified in accordance with standard operating procedures and job specifications. | *Assessor guide: observe that –*<br>Location of required weld(s) identified for given tasks. | *Assessor guide: confirm that –*<br>Location of weld can be determined from standard operating procedures and job specifications. |

## Element 5.12A.2 Prepare materials for welding

| | | |
|---|---|---|
| **Criteria 5.12A.2.1**<br>Materials are cleaned and prepared ready for welding. | *Assessor guide: observe that –*<br>The materials to be welded are cleaned and prepared using appropriate tools and techniques. | *Assessor guide: confirm that –*<br>The materials preparation required prior to welding can be identified. The tools and techniques appropriate to the preparation of materials to be welded can be identified. |

## Element 5.12A.3 Prepare equipment for welding

| | | |
|---|---|---|
| **Criteria 5.12A.3.1**<br>Welding equipment is set up correctly. | *Assessor guide: observe that –*<br>Welding leads are correctly attached. Current setting is appropriate for the size and type of electrode and for position of weld. | *Assessor guide: confirm that –*<br>Different current settings can be given to suit typical situations and electrodes. |

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MEM 5.12A B Perform routine manual metal arc welding 

| | | |
|---|---|---|
| **Criteria 5.12A.3.2**<br>Correct electrodes are selected. | *Assessor guide: observe that –*<br>The correct electrode flux type and size is selected to produce the weld required and ,where applicable, according to job instructions/drawings/work specifications. | *Assessor guide: confirm that –*<br>Different electrodes can be identified and related to a typical range of welding outcomes. |

## Element 5.12A.4 Perform routine welding using MMAW

| | | |
|---|---|---|
| **Criteria 5.12A.4.1**<br>Safe welding practices are applied. | *Assessor guide: observe that –*<br>All welds are performed in a safe manner with regard to the operator and other personnel. Precautions are taken to protect the welder and other personnel from hazards associated with welding process. | *Assessor guide: confirm that –*<br>Safe welding practices and precautions can be given. Typical hazards can be identified. |
| **Criteria 5.12A.4.2**<br>Materials are welded to job requirements. | *Assessor guide: observe that –*<br>Welds are produced with a minimum number of major defects. Appropriate action taken to report defects. Cause of major defects identified and required adjustments to settings/ electrodes/welding technique identified. | *Assessor guide: confirm that –*<br>Major defects and their causes relating to MMAW can be given. |
| **Criteria 5.12A.4.3**<br>Welds cleaned in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>All welds are cleaned to specification. Standard operating procedures are followed, where applicable. | *Assessor guide: confirm that –*<br>The weld cleaning requirements can be identified. The appropriate tools/equipment for cleaning welds can be identified. |

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MEM 5.12A B Perform routine manual metal arc welding 

**Range statement**

Routine MMAW in this unit is intended to apply in a manufacturing or maintenance environment where welding is not required to meet Australian Standards or other welding codes, licensing requirements, Occupational Health and Safety regulations relating to certificated/coded welding. Fillet and butt welds in all positions would typically be performed on low carbon/mild steels. Weld preparation would be minimal and generally restricted to cleaning, using files and grinders. In circumstances where welding is required to meet Australian Standard 1554 General Purpose or equivalent codes, Occupational Health and Safety regulations and/or licensing requirements then Unit 5.15A (Weld using manual metal arc welding process) should be selected.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with routine manual arc welding or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable time frames relating to typical workplace activities.

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MEM 9.2A A Interpret technical drawing 

# MEM 9.2A A Interpret technical drawing

**Band – Specialisation band A** **Field –Drawing, drafting & design** **Unit Weight 4**

## Element 9.2A.1 Interpret technical drawing

| | | |
|---|---|---|
| **Criteria 9.2A.1.1**<br>Components, assemblies or objects recognised as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The relationship between the views contained in the drawing can be identified. The number of objects/components contained in the drawing can be identified. The objects represented in the drawing can be correctly identified. |
| **Criteria 9.2A.1.2**<br>Dimensions identified as appropriate to field of employment. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The units of measurement used in the preparation of the drawing can be identified. The dimensions of the key features of the objects depicted in the drawing can be correctly identified. |
| **Criteria 9.2A.1.3**<br>Instructions identified and followed as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The instructions contained in the drawing can be identified. The actions to be undertaken in response to those instructions can be given. |
| **Criteria 9.2A.1.4**<br>Material requirements identified as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The materials from which the object(s) are made can be identified from the drawing. |

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MEM 9.2A A Interpret technical drawing 

| | | |
|---|---|---|
| **Criteria 9.2A.1.5**<br>Symbols recognised as appropriate in drawing.<br>and | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>Any symbols used in the drawing can be identified<br><br>interpreted correctly. |

## Element 9.2A.2 Select correct technical drawing

| | | |
|---|---|---|
| **Criteria 9.2A.2.1**<br>Drawing checked and validated against job requirements or equipment. | *Assessor guide: observe that –*<br>The drawing is checked against job requirements/related equipment in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for checking and validating drawings against job requirements and/or the related equipment can be given. The reasons for validating the drawing against the job requirements and/or related equipment can be explained. |
| **Criteria 9.2A.2.2**<br>Drawing version checked and validated. | *Assessor guide: observe that –*<br>The drawing version is confirmed as being current in accordance with standard operating procedures. Where appropriate, the current version of the drawing is obtained in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The version of the drawing can be identified. The source of information with respect to the current version of the drawing can be identified. The procedures for obtaining current versions of drawings can be given. The reasons for validating that the current version of the drawing is being used can be explained. |

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## Range statement

Technical drawing interpretation is applied to any of the full range of engineering disciplines. 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. Standard symbols to Australian Standard 1100 and/or Australian Standard 1102 or equivalent as above, are recognised in field of employment. Technical drawings may include symbol glossaries. Where interpretation of any drawing sketch, chart, diagram is required and is provided at a lower level than Australian Standard 1100/Australian Standard 1102 or their equivalent then these skills are covered by Unit 9.1A (Draw and interpret sketch). Where any drawing sketch, chart, diagram is only used as the technique for communication then this unit does not apply, see Unit 1.1F (Undertake interactive workplace communication).

## Evidence guide

### Assessment context

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

### Assessment conditions

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

### Critical aspects

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the interpretation of technical drawings or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

### Special notes

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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MEM 5.15A BWeld using manual metal arc welding process 

# MEM 5.15A B Weld using manual metal arc welding process

**Band – Specialisation band A** **Field – Fabrication** **Unit Weight 4**

**Pre-requisite units - Path 1**

5.12A Perform routine manual metal arc welding 18.1A Use hand tools 18.2A Use power tools/hand held operations

## Element 5.15A.1 Prepare materials for welding

| | | |
|---|---|---|
| **Criteria 5.15A.1.1**<br>Material is correctly prepared. | *Assessor guide: observe that –*<br>All appropriate specifications and drawings are obtained. | *Assessor guide: confirm that –*<br>The weld requirements can be identified. |
| **Criteria 5.15A.1.2**<br>Material is correctly prepared. | *Assessor guide: observe that –*<br>Appropriate tools and techniques are used to prepare material for welding in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The material preparation requirements can be identified. |

## Element 5.15A.2 Select welding machine components

| | | |
|---|---|---|
| **Criteria 5.15A.2.1**<br>Welding machine and electrodes identified. | *Assessor guide: observe that –*<br>Correct welding machine and electrodes for given task is identified against pre-determined welding procedures and specifications and/or technical drawings. | *Assessor guide: confirm that –*<br>The application of a variety of welding machines can be given. The application of the electrodes classification system can be given. |

## Element 5.15A.3 Assemble and set up welding equipment

| | | |
|---|---|---|
| **Criteria 5.15A.3.1**<br>Welding equipment assembled and set up. | *Assessor guide: observe that –*<br>Welding equipment is correctly assembled and set up to safety and work site procedures. | *Assessor guide: confirm that –*<br>The relationships between amperage, electrode and material can be given. The appropriate settings for the given applications and the selected equipment/electrodes can be identified. |

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MEM 5.15A B Weld using manual metal arc welding process



## Element 5.15A.4 Minimise and rectify distortion

| | | |
|---|---|---|
| **Criteria 5.15A.4.1**<br>Appropriate distortion prevention measures are selected. | *Assessor guide: observe that –*<br>Appropriate distortion prevention measures are undertaken during the welding process. | *Assessor guide: confirm that –*<br>Methods of preventing distortion of welded materials can be given. The appropriate distortion prevention method for the given application can be identified. |
| **Criteria 5.15A.4.2**<br>Distortion is rectified. | *Assessor guide: observe that –*<br>Where appropriate, distortion of welded materials is rectified in accordance with work site procedures. | *Assessor guide: confirm that –*<br>Methods of rectifying distortion of welded materials and their applications can be given. |

## Element 5.15A.5 Weld to job specification using MMAW

| | | |
|---|---|---|
| **Criteria 5.15A.5.1**<br>Weld deposit is to specification. | *Assessor guide: observe that –*<br>Welds are deposited according to job requirements. | *Assessor guide: confirm that –*<br>The weld requirements for similar applications can be identified. |
| **Criteria 5.15A.5.2**<br>Joints cleaned to specifications. | *Assessor guide: observe that –*<br>The welded joint is cleaned using appropriate tools and techniques in accordance with work site procedures. | *Assessor guide: confirm that –*<br>Methods of cleaning welded joints can be given. |

## Element 5.15A.6 Ensure weld conformance

| | | |
|---|---|---|
| **Criteria 5.15A.6.1**<br>Defects removed with minimum loss of sound metal using correct and appropriate techniques and tools. | *Assessor guide: observe that –*<br>Where appropriate, weld defects are removed in accordance with work site procedures. A minimum amount of sound metal is removed with the defect. | *Assessor guide: confirm that –*<br>Methods of weld defect removal and their application can be given. |
| **Criteria 5.15A.6.2**<br>Weld joints visually inspected for conformance to specifications. | *Assessor guide: observe that –*<br>Visual defects in welded joints are identified. | *Assessor guide: confirm that –*<br>Weld discontinuities detectable visually can be given. |

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MEM 5.15A B Weld using manual metal arc welding process 

## Element 5.15A.7 Maintain weld records

| **Criteria 5.15A.7.1** | *Assessor guide: observe that –* | *Assessor guide: confirm that –* |
|---|---|---|
| Weld records are completed correctly. | Weld records are accurately completed in accordance with standard operating procedures. | The weld records to be kept can be identified. The frequency at which weld details are to be recorded can be identified. The reasons for keeping weld records can be given. |

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MEM 5.15A B Weld using manual metal arc welding process 

## Range statement

Work undertaken autonomously or within a team environment using predetermined standards of quality, safety, work and welding procedures and the skills applied to a range of fabrication activities. A range of material suitable to heavy or light fabrication is used. Fillet and butt welds in all positions on a range of materials that may include carbon steel or stainless steel, etc. As a guide, welds produced to the standard of this unit would typically conform to Australian Standard 1554 General Purpose, American Bureau of Shipping (ABS) or equivalent. Preparation of materials may include preheating, setting up of jigs, fixtures, clamps, etc. Remedial action using thermal processes may include oxyacetylene and air arc equipment. Grinding devices may also be used. Where thermal processes, hand and/or power tools are required the appropriate specialisation units should be accessed.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any drawings, specifications, catalogues, manuals, codes, standards and information relevant to the work. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the manual metal arc welding process or other competencies requiring the exercise of the skills and knowledge covered by this unit.

**Special notes**

During assessment, the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.

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MEM 5.1A A Manual soldering/desoldering - electrical/electronic components Metal and Engineering Training Package

# MEM 5.1A A Manual soldering/desoldering - electrical/electronic components

**Band – Specialisation band A** **Field – Fabrication** **Unit Weight 4**

## Element 5.1A.1 Prepare materials for soldering

| | | |
|---|---|---|
| **Criteria 5.1A.1.1**<br>Materials preparation instructions understood and followed. | *Assessor guide: observe that –*<br>Materials are prepared for soldering in accordance with instructions and work site procedures. | *Assessor guide: confirm that –*<br>The preparation requirements of materials prior to soldering can be identified. The consequences of incorrect material preparation prior to soldering can be given. |
| **Criteria 5.1A.1.2**<br>Materials prepared using correct soldering tools, equipment, materials and procedures. | *Assessor guide: observe that –*<br>Appropriate tools are used in the preparation of materials for soldering in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The correct application of a range of soldering tools and equipment can be given. The applications of different solders and fluxes with respect to the materials to be soldered can be identified. |
| **Criteria 5.1A.1.3**<br>Materials prepared to specifications using instruction or standard operating procedures. | *Assessor guide: observe that –*<br>The materials to be soldered are prepared to specification and in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The material preparation requirements can be identified. |

## Element 5.1A.2 Solder materials

| | | |
|---|---|---|
| **Criteria 5.1A.2.1**<br>Correct soldering techniques, procedures, materials and soldering tools selected. | *Assessor guide: observe that –*<br>An appropriate soldering technique is selected in accordance with work site procedures. The correct tools and materials are selected in accordance with work site procedures. | *Assessor guide: confirm that –*<br>Examples of alternative soldering techniques and their application can be given. |

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MEM 5.1A A Manual soldering/desoldering - electrical/electronic components Metal and Engineering Training Package

| | | |
|---|---|---|
| **Criteria 5.1A.2.2**<br>Materials to be jointed, mounted, shaped to specification using standard operating procedures. | *Assessor guide: observe that –*<br>Where appropriate, materials to be jointed are aligned, clamped and mounted as necessary prior to soldering, in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The required relationship between the parts to be joined can be identified. |
| **Criteria 5.1A.2.3**<br>Solder applied using correct and appropriate techniques. | *Assessor guide: observe that –*<br>An appropriate soldering technique is used to apply solder to the materials to be jointed, in accordance with work site procedures. | *Assessor guide: confirm that –* |
| **Criteria 5.1A.2.4**<br>Where appropriate, excess material removed using correct and appropriate tools and techniques. | *Assessor guide: observe that –*<br>Where appropriate, excess solder is removed in accordance with work site procedures. | *Assessor guide: confirm that –*<br>Methods of solder removal and their application can be identified. |
| **Criteria 5.1A.2.5**<br>Procedures for the protection of components observed according to standard operating procedure. | *Assessor guide: observe that –*<br>Work site procedures for the protection of components are followed. | *Assessor guide: confirm that –*<br>Component protection procedures can be described. |

## Element 5.1A.3 Inspect solder joints

| | | |
|---|---|---|
| **Criteria 5.1A.3.1**<br>Inspection procedure undertaken to standard operating procedures. | *Assessor guide: observe that –*<br>Work site inspection procedures are followed. | *Assessor guide: confirm that –*<br>The inspection procedures for soldered joints can be identified. |
| **Criteria 5.1A.3.2**<br>Inspection results reported/recorded to standard operating procedures as required. | *Assessor guide: observe that –*<br>Inspection results are recorded/reported in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The information to be recorded and the frequency of recording can be identified. |

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MEM 5.1A A Manual soldering/desoldering - electrical/electronic components Metal and Engineering Training Package

## Element 5.1A.4 Undertake desoldering

| | | |
|---|---|---|
| **Criteria 5.1A.4.1**<br>Correct and appropriate techniques, procedures, desoldering tools and equipment selected. | *Assessor guide: observe that –*<br>Appropriate desoldering tools and equipment are selected in accordance with work site procedures. | *Assessor guide: confirm that –*<br>Desoldering techniques and procedures can be identified. The applications of different desoldering techniques/procedures can be given. |
| **Criteria 5.1A.4.2**<br>Materials/components de-soldered using correct procedure minimising damage to materials, components. | *Assessor guide: observe that –*<br>Materials/components are de-soldered in accordance with work site procedures. Damage to materials/components is minimised through the application of appropriate work site procedures. | *Assessor guide: confirm that –*<br>Methods of minimising damage to materials/components can be identified. |
| **Criteria 5.1A.4.3**<br>Material/device removed and cleaned to specifications using standard operating procedures. | *Assessor guide: observe that –*<br>The material/device is removed and cleaned in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The methods of cleaning solder from materials/devices can be identified. The applications of different cleaning methods can be given. |

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MEM 5.1A A Manual soldering/desoldering - electrical/electronic components Metal and Engineering Training Package

## Range statement

This unit covers manual soldering/desoldering for the installation and fabrication of electrical/electronic components. Work undertaken in a production or maintenance environment using predetermined standards of quality, safety and work procedures. Component protection procedures are predetermined. Correct and appropriate soldering tools and equipment may include all types of soldering irons, cutters, brushes, files, soldering tips, solder syringes, holding devices etc. Correct and appropriate materials may include solder (solid resin cord and paste), flux (resin or powder) etc. All materials and procedures specified via job instructions. Inspections carried out using visual, mechanical or electric techniques with pre setup equipment. All work undertaken to legislative and regulatory requirements. Depending on the actual soldering job, hand and power tools and measuring skills may be required. These are covered by other units such as Unit 18.1A (Use hand tools), Unit 18.2A (Use power tools/hand held operations) and appropriate measurement units. Handling refers to methods of physical handling and stress relief methods of preventing damage caused by electrostatic discharge. This may include wrist straps and anti-static work areas and practices. This unit does not include skills in silver soldering or brazing skills. These skills are covered in Unit 5.6A (Perform brazing and/or silver soldering). Where soldering and desoldering is limited to the straightforward termination, disconnection or reconnection of electrical wiring then see Unit 10.2A (Terminate and connect electrical wiring). Advanced specification and high reliability soldering associated with the installation of electrical/electronic components, in areas where reliability of connections is critical, is covered by Unit 5.2A (High reliability soldering and desoldering).

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, material and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with manual soldering and their own work; -

**Special notes**

During assessment, the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of

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desoldering or other competencies requiring the exercise of the skills and knowledge covered by this unit.

plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specifications; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.

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# MEM 5.4A B Perform routine oxy acetylene welding

**Band – Specialisation band A** **Field – Fabrication** **Unit Weight 2**

## Element 5.4A.1 Prepare materials for welding

| | | |
|---|---|---|
| **Criteria 5.4A.1.1**<br>Weld requirements are determined in accordance with job specifications. | *Assessor guide: observe that –*<br>All appropriate specifications and drawings are obtained in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The weld requirements can be identified. The weld specifications can be identified. The location and size of welds can be identified. |
| **Criteria 5.4A.1.2**<br>Material is cleaned and prepared using appropriate tools and techniques in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>The materials to be welded are cleaned and prepared using appropriate tools and techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The materials preparation required prior to welding can be identified. The tools and techniques appropriate to the preparation of materials to be welded can be identified. |

## Element 5.4A.2 Assemble and set up welding equipment

| | | |
|---|---|---|
| **Criteria 5.4A.2.1**<br>Welding equipment including cylinders and regulators are assembled and set up safely and correctly in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>The welding equipment is correctly assembled and set up in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for assembling and setting up oxyacetylene/fuel gas welding equipment can be given. The safety precautions to be taken when assembling and setting up oxyacetylene/fuel gas welding equipment can be identified. |

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MEM 5.4A B Perform routine oxy acetylene welding 

## Element 5.4A.3 Select welding equipment, settings, and consumables

| | | |
|---|---|---|
| **Criteria 5.4A.3.1**<br>Welding tips, settings and consumables selected against job requirements, welding procedures, in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>The appropriate oxygen and acetylene (or appropriate fuel gas) settings are set in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The appropriate settings for the given task and the selected welding tips and consumables can be identified. The application of a variety of filler rods and fluxes can be given. The appropriate filler rod and flux for the given task can be identified. The reasons for selecting the chosen welding tip, filler rod and flux can be given. |

## Element 5.4A.4 Perform routine welding using fuel gas process

| | | |
|---|---|---|
| **Criteria 5.4A.4.1**<br>Weld undertaken safely and to prescribed procedure. | *Assessor guide: observe that –*<br>All welds are performed safely and in accordance with standard operating procedure. | *Assessor guide: confirm that –*<br>The hazards associated with welding processes can be identified. Appropriate personal protection equipment and its function can be identified. The appropriate ventilation/extraction requirements can be identified. |
| **Criteria 5.4A.4.2**<br>Welds cleaned in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>All welds are cleaned in accordance with specifications and standard operating procedures. | *Assessor guide: confirm that –*<br>The weld cleaning requirements can be identified. The appropriate tools/equipment for cleaning welds can be identified. |

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MEM 5.4A B Perform routine oxy acetylene welding 

## Range statement

Oxy acetylene welding (OAW) in this unit is intended to apply in a manufacturing or maintenance environment where welding is not required to meet Australian Standards or equivalent codes, and/or licensing requirements. The term "oxy-acetylene" is used here to describe a range of fuel gases, including acetylene, LPG, hydrogen etc. The person would work autonomously or within a team environment using predetermined standards of quality, safety, work and welding procedures. Materials welded may include low carbon steel, cast iron, etc. Preparation of materials would be minimal and include preheating, setting up jigs, fixtures, clamps, etc. Setting up may include the correct connection of hoses, blowpipes, regulators, etc., and correct settings of gas mixtures.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with routine oxyacetylene welding (fuel gas welding) or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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MEM 5.6A A Perform brazing and/or silver soldering 

# MEM 5.6A A Perform brazing and/or silver soldering

**Band – Specialisation band A** **Field – Fabrication** **Unit Weight 2**

## Element 5.6A.1 Prepare materials and equipment

| | | |
|---|---|---|
| **Criteria 5.6A.1.1**<br>Job requirements determined from specifications and/ or instructions. | *Assessor guide: observe that –*<br>All relevant drawings, specifications and instructions are obtained in accordance with work place procedures. | *Assessor guide: confirm that –*<br>The brazing/silver soldering requirements can be identified. The specifications of the joint to be brazed/silver soldered can be identified. The location and size of the joint to be brazed/silver soldered can be identified. |
| **Criteria 5.6A.1.2**<br>Materials correctly prepared using appropriate tools and techniques. | *Assessor guide: observe that –*<br>The materials to be brazed/silver soldered are cleaned and prepared using appropriate tools and techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The materials preparation required prior to brazing/silver soldering can be identified. The tools and techniques appropriate to the preparation of materials to be brazed/silver soldered can be identified. |
| **Criteria 5.6A.1.3**<br>Materials correctly assembled/aligned to meet specifications as required. | *Assessor guide: observe that –*<br>The materials to be brazed/silver soldered are assembled/aligned to specification in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The method of assembling/aligning the materials to be brazed/silver soldered can be identified. The reasons for selecting the chosen method of assembly/alignment can be given. |

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MEM 5.6A A Perform brazing and/or silver soldering 

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| **Criteria 5.6A.1.4**<br>Distortion prevention measures identified and appropriate action taken as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The procedures for minimising distortion of the materials being brazed/silver soldered can be given. The action to be taken to minimise distortion during the brazing/silver soldering process can be identified. The reasons for selecting the chosen action can be given. |
| **Criteria 5.6A.1.5**<br>Heating equipment assembled and set up safely and correctly in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>The heating equipment is correctly and safely assembled and set up in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The appropriate heating equipment for the given task can be identified. The procedures for assembling and setting up the chosen heating equipment can be given. The reasons for selecting the chosen heating equipment can be given. The safety precautions to be taken when assembling and setting up the heating equipment can be identified. |
| **Criteria 5.6A.1.6**<br>Correct and appropriate consumables selected and prepared. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The appropriate consumables for the brazing/silver soldering process can be identified. The reasons for selecting the chosen consumables can be given. |
| **Criteria 5.6A.1.7**<br>Test run undertaken and verified as required. | *Assessor guide: observe that –*<br>Where appropriate, a test run is undertaken and checked for conformance to specifications in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The reasons for undertaking test runs can be explained. The procedures for checking test runs against specifications can be given. The tools, equipment and techniques to be used in checking test runs for conformance with specifications can be identified. |

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MEM 5.6A A Perform brazing and/or silver soldering 

## Element 5.6A.2 Braze and/or silver solder

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| **Criteria 5.6A.2.1**<br>Correct and appropriate process selected to meet specifications. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>Typical applications of brazing and silver soldering processes can be given. The most appropriate process for the given task can be identified. The reasons for selecting the chosen process can be given. |
| **Criteria 5.6A.2.2**<br>Materials preheated as required. | *Assessor guide: observe that –*<br>The materials to be joined are preheated in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for preheating the materials to be joined can be given. The precautions to be taken when preheating materials to be joined can be identified. |
| **Criteria 5.6A.2.3**<br>Consumables applied using correct and appropriate techniques. | *Assessor guide: observe that –*<br>The jointing material and flux are applied to the joint using correct and appropriate techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures and techniques for applying flux and jointing material to the joint can be given. The effects of the use of inappropriate techniques on the performance of the jointed materials can be given. |
| **Criteria 5.6A.2.4**<br>Jointing material applied correctly and in appropriate quantities to meet job/specifications. | *Assessor guide: observe that –*<br>The jointing material is applied correctly and in appropriate quantities to conform to specifications. | *Assessor guide: confirm that –*<br>The joint specifications can be identified. The effect of inappropriate quantities of jointing material on the performance of the jointed materials can be given. |
| **Criteria 5.6A.2.5**<br>Material temperatures normalised using correct and appropriate techniques. | *Assessor guide: observe that –*<br>The temperatures of the jointed materials are normalised using correct and appropriate techniques in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for normalising the temperature of jointed materials can be given. The consequences of using inappropriate techniques to normalise the temperature of the joint can be explained. |

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MEM 5.6A A Perform brazing and/or silver soldering 

## Element 5.6A.3 Inspect joints

| | | |
|---|---|---|
| **Criteria 5.6A.3.1**<br>Excess jointing materials removed using correct and appropriate techniques. | *Assessor guide: observe that –*<br>Where appropriate, excess jointing materials are removed using correct and appropriate techniques. | *Assessor guide: confirm that –*<br>The procedures for removing excess jointing material can be given. The tools and techniques to be used to remove excess jointing materials can be identified. |
| **Criteria 5.6A.3.2**<br>Inspection of joints undertaken to standard operating procedures. | *Assessor guide: observe that –*<br>The brazed/silver soldered joint is inspected for conformance to specifications in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for inspecting brazed/silver soldered joints can be given. The equipment and techniques to be used to inspect the joint for conformance to specifications can be identified. |
| **Criteria 5.6A.3.3**<br>Inspection results reported/recorded using standard operating procedures as required. | *Assessor guide: observe that –*<br>Where appropriate, the inspection results are reported/recorded in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for recording/ reporting the inspection results can be given. |

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MEM 5.6A A Perform brazing and/or silver soldering 

## Range statement

Work undertaken in a production or maintenance environment using predetermined standards of quality, safety and work procedures. Work may be undertaken autonomously or within a team environment. Heating medium can include oxyacetylene and fuel gas. Correct and appropriate consumables may include fluxes (resin or powder), all types of silver solder and brazing grades, etc. Correct and appropriate assembly of heating equipment may include cylinders, connections, hoses, tips and nozzles. All work undertaken to legislative and regulatory requirements.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with brazing and/or silver soldering or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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# MEM 5.7A B Manual heating and thermal cutting

**Band – Specialisation band A** **Field – Fabrication** **Unit Weight 2**

## Element 5.7A.1 Assemble/disassemble plant, equipment for manual heating and thermal cutting

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|---|---|---|
| **Criteria 5.7A.1.1**<br>Appropriate cutting process and/or procedure for material is selected. | *Assessor guide: observe that –*<br>All relevant job sheets, drawings and instructions are obtained in accordance with work place procedures. | *Assessor guide: confirm that –*<br>The material to be cut can be identified. The most appropriate cutting process for the material to be cut can be identified. The reasons for selecting the chosen cutting process can be given. |
| **Criteria 5.7A.1.2**<br>Accessories and equipment correctly selected and assembled. | *Assessor guide: observe that –*<br>The selected equipment and accessories are correctly assembled in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The tools, equipment and techniques required to carry out the chosen cutting process can be identified. The reasons for selecting the chosen equipment and accessories can be given. The procedures for assembling the selected equipment and accessories can be given. |

## Element 5.7A.2 Operate heating and thermal cutting equipment

| | | |
|---|---|---|
| **Criteria 5.7A.2.1**<br>All safety procedures observed. | *Assessor guide: observe that –*<br>All safety procedures are followed throughout the heating and cutting processes. | *Assessor guide: confirm that –*<br>The hazards associated with manual heating and thermal cutting can be identified. The appropriate personal protective clothing and equipment can be identified. |

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MEM 5.7A B Manual heating and thermal cutting 

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| **Criteria 5.7A.2.2**<br>Equipment start up procedures followed correctly to standard operating procedures. | *Assessor guide: observe that –*<br>The equipment is started up safely in accordance with standard operating procedures. All necessary pre-start checks are carried out in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for starting up the equipment can be given. The pre-start checks to be undertaken can be identified. |
| **Criteria 5.7A.2.3**<br>Equipment adjustments made correctly using standard operating procedures. | *Assessor guide: observe that –*<br>Where appropriate, the equipment is adjusted to operating specifications in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for adjusting the equipment for correct operation can be given. The adjustments that can be made to the equipment can be identified. The effect of those adjustments on the operation/performance of the equipment can be explained. |
| **Criteria 5.7A.2.4**<br>Appropriate cutting allowances made. | *Assessor guide: observe that –*<br>Appropriate cutting allowances are made when carrying out cutting processes. | *Assessor guide: confirm that –*<br>The dimensions/specifications of the cut material can be identified. The cutting allowance to be applied to ensure the cut material conforms to specification can be identified. The source(s) of cutting allowance information can be identified. The reasons for applying cutting allowances to the material to be cut can be explained. |
| **Criteria 5.7A.2.5**<br>Material used in the most economical way. | *Assessor guide: observe that –*<br>The material from which the object(s) are to be cut is used in the most economical way. Where appropriate, the material to be cut is marked out to ensure minimum wastage of material. | *Assessor guide: confirm that –*<br>The procedures for minimising waste material when cutting objects from sheet or plate can be given. The reasons for minimising waste material can be explained. |

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| **Criteria 5.7A.2.6**<br>Defects recognised and corrective action taken to standard operating procedures. | *Assessor guide: observe that –*<br>Where appropriate, cutting defects are recognised and appropriate corrective action taken in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>Examples of cutting defects and their cause can be given. The procedures for correcting cutting defects can be given. The tools, equipment and techniques required to correct cutting defects can be identified. |
| **Criteria 5.7A.2.7**<br>Material heated and cut to specification.<br>Shape/size/length to accepted workplace standards. | *Assessor guide: observe that –*<br>The material is heated and cut to specifications in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The specifications to which the heating and cutting to be carried out is to conform can be identified. The procedures for undertaking the heating and cutting of the material can be given. |

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MEM 5.7A B Manual heating and thermal cutting 

## Range statement

Work is undertaken autonomously or as part of a team. Predetermined standards of quality and safety are observed and work is carried out following standard operating procedures. Manual, straight line cutting standards observed. Manual or automatic processes used to cut and heat to specifications. Cutting may include flame gouging by hand. All work carried out to legislative and regulatory requirements. Cutting may be applied to material of various thicknesses and types including ferrous, non-ferrous and non-metallic materials by a variety of methods which may include fuel gas, oxy fuel gas and air fuel gas. Cutting may include use of hand held and self-propelled straight line cutters. Heating may be applied to material of various thicknesses and types including ferrous, non-ferrous and non-metallic materials by a variety of methods which may include fuel gas, oxy fuel gas and air fuel gas.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with manual heating, thermal cutting and gouging or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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# MEM 7.5A A Perform general machining

**Band – Specialisation band A** **Field – Machine & process operations** **Unit Weight 8**

**Pre-requisite units - Path 1**

2.5C11 Measure with graduated devices 9.2A Interpret technical drawing 18.1A Use hand tools

## Element 7.5A.1 Determine job requirements

| **Criteria 7.5A.1.1** | *Assessor guide: observe that –* | *Assessor guide: confirm that –* |
|---|---|---|
| Drawings, instructions and specifications interpreted and understood. | All relevant drawings, instructions and specifications are obtained in accordance with workplace procedures. | The work to be undertaken can be identified. The specifications pertaining to the work to be done can be identified. |

## Element 7.5A.2 Determine sequence of operations

| **Criteria 7.5A.2.1** | *Assessor guide: observe that –* | *Assessor guide: confirm that –* |
|---|---|---|
| Sequence of operations including job set up is determined for maximum efficiency and to meet job specifications. | A work plan is prepared identifying the sequence of operations to be performed. | The operations to be performed can be identified. The reasons for selecting the chosen sequence of operations can be explained. The machines/equipment necessary to perform those operations can be identified. The method of job holding to be used can be identified. |

| **Criteria 7.5A.2.2** | *Assessor guide: observe that –* | *Assessor guide: confirm that –* |
|---|---|---|
| Appropriate material selected and datum established as required. | Appropriate material is selected in accordance with standard operating procedures. | The material to be used can be identified. Where appropriate, datum points/ lines can be identified. |

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MEM 7.5A A Perform general machining 

## Element 7.5A.3 Select and mount tools

| | | |
|---|---|---|
| **Criteria 7.5A.3.1**<br>Appropriate tools for job selected, sharpened and shaped as required. | *Assessor guide: observe that –*<br>Where appropriate, cutting tools are sharpened and shaped to suit the materials to be cut and the operations to be performed in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>A range of cutting tools and their application can be identified. The correct geometry for cutting tools for a range of materials and applications can be identified from appropriate data sheets/texts. Worn or damaged cutting tools can be identified. The benefits of using correctly sharpened cutting tools can be given. The cutting tools appropriate to the operations to be performed can be identified. |
| **Criteria 7.5A.3.2**<br>Tools mounted and positioned correctly. | *Assessor guide: observe that –*<br>All tools are mounted and positioned correctly in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The correct methods of mounting a variety of cutting tools can be given. |

## Element 7.5A.4 Perform machining operations

| | | |
|---|---|---|
| **Criteria 7.5A.4.1**<br>Basic marking out techniques used where required. | *Assessor guide: observe that –*<br>Where appropriate, materials are marked out to facilitate machining in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The reasons for marking out materials can be given. |
| **Criteria 7.5A.4.2**<br>Machining parameters set for job requirements and maximum tool life. | *Assessor guide: observe that –*<br>The machining parameters are set to achieve the job requirements and maximise tool life in accordance with standard operating procedures. | *Assessor guide: confirm that –* |
| **Criteria 7.5A.4.3**<br>Work held or correctly clamped without damage to product and all safety requirements met. | *Assessor guide: observe that –*<br>Appropriate and sufficient clamping/mounting is used and workpiece is not damaged or distorted. | *Assessor guide: confirm that –*<br>Safety issues can be explained with regard to correct clamping. |

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| | | |
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| **Criteria 7.5A.4.4**<br>Machining performed in a safe manner utilising all guards, safety procedures and personal protective clothing and equipment. | *Assessor guide: observe that –*<br>Operations are performed according to the established machining parameters and safety procedures and requirements. Correct coolant/lubricant is used where required. | *Assessor guide: confirm that –*<br>Safety issues can be explained with regard to adequate guards, shields etc. as well as personal protective clothing and equipment. |

## Element 7.5A.5 Measure components

| | | |
|---|---|---|
| **Criteria 7.5A.5.1**<br>Components checked with appropriate instruments or gauges to ensure compliance with specifications. | *Assessor guide: observe that –*<br>Correct measuring devices selected and used with checks against specifications. | *Assessor guide: confirm that –*<br>Operator is aware of tolerances, limits etc. |

## Element 7.5A.6 Adjust and maintain machine

| | | |
|---|---|---|
| **Criteria 7.5A.6.1**<br>Routine maintenance and adjustments carried out as required which may include slide and collar adjustment, cleaning and lubrication and the like. | *Assessor guide: observe that –*<br>Adjustments and lubrication are made according to standard operating procedures. Machine appropriately cleaned. | *Assessor guide: confirm that –*<br>Operator can describe situations indicating the need for machine adjustment, lubrication and cleaning. |

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MEM 7.5A A Perform general machining 

## Range statement

Machining is undertaken on one or more of a range of standard machine tools. Work is undertaken to predetermined specifications. Machines are not CNC (computer numerical control) machines and may include lathes, mills, planers, shapers, drills, slotters, surface grinders etc. Materials may include standard ferrous and non-ferrous materials. Operations and set up carried out on those machines are straightforward and may include parallel cutting, slotting, planing, drilling, knurling, cutting flats, non-precision surface grinding operations etc. Surface grinding operations covered by this unit are those requiring magnetic chucks and grinding of flat surfaces. Machining parameters include speeds, feeds, stops, coolant and cutting lubricants etc. Work is carried out autonomously to predetermined standards of quality and safety. Drilling operations in this unit exclude those covered by Unit 18.2A (Use power tools/hand held operations). Where substantial marking out is required, Unit 12.6A (Mark off/out (general engineering)) should be considered. Where precision measurement is required, Unit 12.3A (Precision mechanical measurement) should also be considered. For set up and operation of EDM machines, see Unit 7.14A (Perform electro-discharge (EDM) machining operations).

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with general machining or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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# MEM 2.5C11 A Measure with graduated devices

**Band – Core** **Field – Core** **Unit Weight 2**

## Element 2.5C11.1 Use a range of graduated devices to measure/determine dimensions or variables

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|---|---|---|
| **Criteria 2.5C11.1.1**<br>Selects appropriate device or equipment to achieve required outcome. | *Assessor guide: observe that –*<br>The appropriate measuring device can be selected from a range of measuring devices for given measuring tasks. | *Assessor guide: confirm that –*<br>The correct application of a range of measuring devices can be identified. The reasons for selecting the chosen measuring device for each of a number of given measuring tasks can be given. |
| **Criteria 2.5C11.1.2**<br>Correct and appropriate measuring technique used. | *Assessor guide: observe that –*<br>For each measuring device selected the correct and appropriate measuring technique is used. | *Assessor guide: confirm that –*<br>The correct and appropriate measuring technique for a range of measuring devices can be identified. The consequences of not using the correct and appropriate measuring techniques for given measuring devices can be explained. |
| **Criteria 2.5C11.1.3**<br>Measures accurately to finest graduation of instrument. | *Assessor guide: observe that –*<br>All measurements taken are read accurately to the finest graduation of the selected measuring device. | *Assessor guide: confirm that –*<br>The accuracy to which a variety of measuring instruments can be read can be identified. The effect of using inappropriate measuring devices or measuring techniques on the accuracy of the measurements taken can be explained. |

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## Element 2.5C11.2 Maintain graduated devices

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| **Criteria 2.5C11.2.1**<br>Routine care and storage of devices undertaken to manufacturer's specification or standard operating procedure. | *Assessor guide: observe that –*<br>All measuring devices are handled and stored in accordance with manufacturers' specifications or standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for handling and storing a range of measuring devices can be given. The effect of inappropriate use, handling and/or storage on the accuracy of measuring devices can be explained. |
| **Criteria 2.5C11.2.2**<br>Checks and makes routine adjustments to devices eg: "zeroing". | *Assessor guide: observe that –*<br>All measuring devices are checked for zero before use in accordance with standard operating procedures. Where appropriate, routine adjustments are made to measuring devices in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The routine adjustments that can be made to a range of measuring devices can be identified. The procedures for adjusting and zeroing a range of measuring devices can be given. The procedures for checking a range of measuring devices for accuracy and correct operation can be given. |

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## Range statement

Work undertaken autonomously or part of team environment. Work undertaken in field, work station, workshops. This unit covers measurement skills requiring straightforward application of the measuring device and may utilise the full range of graduations of measuring device. Examples may include measurements using verniers, feeler gauges, micrometers, dial indicators, thermometers, and similar graduated devices. Measurements undertaken may include: length, squareness, flatness, angle, roundness, clearances or any other measurements that can be read off analog, digital or other graduated device. Electrical/electronic devices used are those not requiring the connection or disconnection of circuitry. Measurements may include metric and imperial measurement. All measurements undertaken to standard operating procedures. Adjustment of measuring devices is through external means and includes zero and linear adjustment. For straightforward use of comparison or basic measuring devices Unit 12.1A (Use comparison and basic measuring devices) should be accessed.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the use of graduated measuring devices or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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# MEM 5.12A B Perform routine manual metal arc welding

**Band – Specialisation band A** **Field –Fabrication** **Unit Weight 2**

## Element 5.12A.1 Identify weld requirements

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| **Criteria 5.12A.1.1**<br>Weld requirements are identified from job instructions. | *Assessor guide: observe that –*<br>Appropriate instructions, specifications and drawings are obtained and weld requirements identified in accordance with work site procedures. | *Assessor guide: confirm that –*<br>The weld requirements for performing routine MMAW can be given. |
| **Criteria 5.12A.1.2**<br>Location of welds are identified in accordance with standard operating procedures and job specifications. | *Assessor guide: observe that –*<br>Location of required weld(s) identified for given tasks. | *Assessor guide: confirm that –*<br>Location of weld can be determined from standard operating procedures and job specifications. |

## Element 5.12A.2 Prepare materials for welding

| | | |
|---|---|---|
| **Criteria 5.12A.2.1**<br>Materials are cleaned and prepared ready for welding. | *Assessor guide: observe that –*<br>The materials to be welded are cleaned and prepared using appropriate tools and techniques. | *Assessor guide: confirm that –*<br>The materials preparation required prior to welding can be identified. The tools and techniques appropriate to the preparation of materials to be welded can be identified. |

## Element 5.12A.3 Prepare equipment for welding

| | | |
|---|---|---|
| **Criteria 5.12A.3.1**<br>Welding equipment is set up correctly. | *Assessor guide: observe that –*<br>Welding leads are correctly attached. Current setting is appropriate for the size and type of electrode and for position of weld. | *Assessor guide: confirm that –*<br>Different current settings can be given to suit typical situations and electrodes. |

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| | | |
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| **Criteria 5.12A.3.2**<br>Correct electrodes are selected. | *Assessor guide: observe that –*<br>The correct electrode flux type and size is selected to produce the weld required and ,where applicable, according to job instructions/drawings/work specifications. | *Assessor guide: confirm that –*<br>Different electrodes can be identified and related to a typical range of welding outcomes. |

## Element 5.12A.4 Perform routine welding using MMAW

| | | |
|---|---|---|
| **Criteria 5.12A.4.1**<br>Safe welding practices are applied. | *Assessor guide: observe that –*<br>All welds are performed in a safe manner with regard to the operator and other personnel. Precautions are taken to protect the welder and other personnel from hazards associated with welding process. | *Assessor guide: confirm that –*<br>Safe welding practices and precautions can be given. Typical hazards can be identified. |
| **Criteria 5.12A.4.2**<br>Materials are welded to job requirements. | *Assessor guide: observe that –*<br>Welds are produced with a minimum number of major defects. Appropriate action taken to report defects. Cause of major defects identified and required adjustments to settings/ electrodes/welding technique identified. | *Assessor guide: confirm that –*<br>Major defects and their causes relating to MMAW can be given. |
| **Criteria 5.12A.4.3**<br>Welds cleaned in accordance with standard operating procedures. | *Assessor guide: observe that –*<br>All welds are cleaned to specification. Standard operating procedures are followed, where applicable. | *Assessor guide: confirm that –*<br>The weld cleaning requirements can be identified. The appropriate tools/equipment for cleaning welds can be identified. |

## Range statement

Routine MMAW in this unit is intended to apply in a manufacturing or maintenance environment where welding is not required to meet Australian Standards or other welding codes, licensing requirements, Occupational Health and Safety regulations relating to certificated/coded welding. Fillet and butt welds in all positions would typically be performed on low carbon/mild steels. Weld preparation would be minimal and generally restricted to cleaning, using files and grinders. In circumstances where welding is required to meet Australian Standard 1554 General Purpose or equivalent codes, Occupational Health and Safety regulations and/or licensing requirements then Unit 5.15A (Weld using manual metal arc welding process) should be selected.

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will have access to: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with routine manual arc welding or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable time frames relating to typical workplace activities.

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# MEM 9.2A A Interpret technical drawing

**Band – Specialisation band A** **Field –Drawing, drafting & design** **Unit Weight 4**

## Element 9.2A.1 Interpret technical drawing

| | | |
|---|---|---|
| **Criteria 9.2A.1.1**<br>Components, assemblies or objects recognised as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The relationship between the views contained in the drawing can be identified. The number of objects/components contained in the drawing can be identified. The objects represented in the drawing can be correctly identified. |
| **Criteria 9.2A.1.2**<br>Dimensions identified as appropriate to field of employment. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The units of measurement used in the preparation of the drawing can be identified. The dimensions of the key features of the objects depicted in the drawing can be correctly identified. |
| **Criteria 9.2A.1.3**<br>Instructions identified and followed as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The instructions contained in the drawing can be identified. The actions to be undertaken in response to those instructions can be given. |
| **Criteria 9.2A.1.4**<br>Material requirements identified as required. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>The materials from which the object(s) are made can be identified from the drawing. |

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| | | |
|---|---|---|
| **Criteria 9.2A.1.5**<br>Symbols recognised as appropriate in drawing. | *Assessor guide: observe that –* | *Assessor guide: confirm that –*<br>Any symbols used in the drawing can be identified and interpreted correctly. |

## Element 9.2A.2 Select correct technical drawing

| | | |
|---|---|---|
| **Criteria 9.2A.2.1**<br>Drawing checked and validated against job requirements or equipment. | *Assessor guide: observe that –*<br>The drawing is checked against job requirements/related equipment in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The procedures for checking and validating drawings against job requirements and/or the related equipment can be given. The reasons for validating the drawing against the job requirements and/or related equipment can be explained. |
| **Criteria 9.2A.2.2**<br>Drawing version checked and validated. | *Assessor guide: observe that –*<br>The drawing version is confirmed as being current in accordance with standard operating procedures. Where appropriate, the current version of the drawing is obtained in accordance with standard operating procedures. | *Assessor guide: confirm that –*<br>The version of the drawing can be identified. The source of information with respect to the current version of the drawing can be identified. The procedures for obtaining current versions of drawings can be given. The reasons for validating that the current version of the drawing is being used can be explained. |

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## Range statement

Technical drawing interpretation is applied to any of the full range of engineering disciplines. 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. Standard symbols to Australian Standard 1100 and/or Australian Standard 1102 or equivalent as above, are recognised in field of employment. Technical drawings may include symbol glossaries. Where interpretation of any drawing sketch, chart, diagram is required and is provided at a lower level than Australian Standard 1100/Australian Standard 1102 or their equivalent then these skills are covered by Unit 9.1A (Draw and interpret sketch). Where any drawing sketch, chart, diagram is only used as the technique for communication then this unit does not apply, see Unit 1.1F (Undertake interactive workplace communication).

## Evidence guide

**Assessment context**

This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.

**Assessment conditions**

The candidate will be provided with: - All tools, equipment, materials and documentation required. The candidate will be permitted to refer to the following documents: - Any relevant workplace procedures. - Any relevant product and manufacturing specifications. - Any relevant codes, standards, manuals and reference materials. The candidate will be required to: - Orally, or by other methods of communication, answer questions put by the assessor. - Identify colleagues who can be approached for the collection of competency evidence where appropriate. - Present evidence of credit for any off-job training related to 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.

**Critical aspects**

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the interpretation of technical drawings or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

**Special notes**

During assessment the individual will: - demonstrate safe working practices at all times; - communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; - take responsibility for the quality of their own work; - plan tasks in all situations and review task requirements as appropriate; - perform all tasks in accordance with standard operating procedures; - perform all tasks to specification; - use accepted engineering techniques, practices, processes and workplace procedures. Tasks involved will be completed within reasonable timeframes relating to typical workplace activities

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# MTMCOR402A Facilitate quality assurance process

## Unit descriptor

This unit deals with the competencies required to oversee a quality assurance program. This unit is suitable for meat retail, smallgoods, meat processing and food service establishments producing meat and meat products for domestic and export markets. *MTMCOR402A Facilitate quality assurance process* is a customisation and extension of the cross industry food safety guideline unit *GFSOFSA Oversee the day to day implementation of food safety in the workplace*. The outcomes are not equivalent.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Facilitate the ongoing implementation of the QA program in the workplace | 1.1 Regulatory basis for compliance with QA program is identified and explained.<br>1.2 The nature and importance of work instructions/task descriptions and operating procedures is identified and workers coached in their implications.<br>1.3 Operating instructions are written so that they comprehensively document the details required for competent performance.<br>1.4 Operating instructions are validated under conditions to verify their suitability.<br>1.5 Implementation of work instructions and operating procedures is monitored. |
| 2 Monitor inspection and test records | 2.1 Procedures for monitoring products and processes are identified and explained.<br>2.2 Critical limits and the causes for product or process not conforming are identified and explained.<br>2.3 Inspection and test records are monitored to verify product quality and to identify performance trends.<br>2.4 Status reports contain description of proposals to introduce improved processes/procedures. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 3 Respond to non conforming product or processes | 3.1 Procedures for taking corrective action are identified.<br>3.2 Control measures are implemented to prevent recurrence.<br>3.3 Procedures are devised or revised to support control measures.<br>3.4 Processes or conditions which could result in a breach of meat safety procedures are identified and corrective action is taken.<br>3.5 Process changes are introduced and controlled so that quality assurance requirements are accomplished. |
| 4 Review product samples | 4.1 Product sampling procedures are described.<br>4.2 Product samples are reviewed to ensure inspection/test data accurately reflects output.<br>4.3 Post collection procedures are described according to standard operating procedures. |
| 5 Calculate yield, wastage and productivity indicators | 5.1 Yield, wastage and productivity measures are calculated to determine performance outcomes.<br>5.2 Yield, wastage and productivity measures are compared with targets to determine variation of actual with planned performance. |
| 6 Calculate calibration adjustments | 6.1 Mathematical concepts associated with equipment calibration are understood and used to determine adjustment to settings.<br>6.2 Calibration calculation is verified by checking the accuracy of the adjustment in the actual work performance. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

At this level, individuals work within the context of enterprise policies and plans provided to them. These may be simple or complex and may be developed by external agents or consultants, by senior management, directors or owner operators in consultation with personnel at this level.

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At this level individuals have considerable responsibility for day to day operations of the enterprise/ department, within the requirements of the enterprise. Typically they will have responsibility for leading, supervising or managing others. The range of skills required by individuals at this level will vary according to the enterprise context.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures

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- enterprise specific procedures
- enterprise quality assurance policy, practices and procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesalers
- food services establishments.

Regulators may require the development of discrete food safety plans, rather than food safety plans embedded in the quality assurance system.

Quality Assurance systems may incorporate food safety plans and programs. A food safety program systematically identifies the food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. It identifies where and how each hazard can be controlled, describes how these controls are to be monitored, the corrective action required if control conditions are not met and information to be recorded. The food safety program must comply with relevant national, state and industry legislation/regulations.

Sampling and testing may be conducted by external agencies.

Quality assurance systems and food safety plans are in standard formats and meet mandatory requirements.

Food safety plans are based on Hazard Analysis Critical Control Point (HACCP) principles.

Teams may be two or more people, all personnel in work area, department or small business and may include a food safety or HACCP team.

Standard operating procedures may relate to personal hygiene, food preparation and processing, pest control, waste disposal, cleaning, maintenance of premises, product recall, customer complaints, calibration.

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Reports may be complex, contain technical, mathematical and graphic information and be presented in standard formats according to enterprise and legal requirements.

Mathematical concepts and measures may include trends, norms, variation from norms, percentages, decimal fractions, time series.

Calibrations will typically relate to measurements associated with weight, volume, temperature and length.

Calculation should be related to typical workplace circumstances and be used in primary recording and summary documentation. Estimating techniques should be used to confirm the general accuracy of calculations. Calculations may be undertaken manually and/or with the aid of a calculator.

Quality data including time series and trends may be presented in tables and graphs.

Reporting may be according to statutory and workplace requirements and may be in manual and/or electronic system. Reports and presentations may be spoken, written and supported by graphs, pictures, charts and tables of primary or summary data. Data will be presented in standard formats. Spread sheets may be used to record and manipulate data.

Language may include complex technical information associated with quality assurance/food safety processes. Communication may be spoken, written, non verbal and include the use of signs, signals, symbols and pictures and involve communication and information technologies. Advanced communication skills may be used in dealing with colleagues, team members, management, customers, clients, external parties from a range of cultural, social and ethnic backgrounds.

## PRE-REQUISITES

MTMMP3B Apply quality assurance practices

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Outline legal obligations of enterprise and individuals for maintenance of the quality assurance system.
- Explain the HACCP principles and the process for developing a quality assurance/food safety program.
- Identify critical limits for enterprise product/processes.
- Interpret the results of in-process inspection/tests.
- Identify trends of in-process inspection/test results.
- Explain actual and potential problems evident from trend analysis.

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- Identify causes of variation and non conformance and explain appropriate course(s) of action to rectify problems.
- Explain the sampling procedure.
- Explain purpose of review process.
- Explain the purpose of calibrating equipment.
- Verify calibrating calculations.
- Explain risks associated with samples and how they may be minimised.
- Explain post collection and procedures for handling samples.
- Identify and describe implementation of a change in the process.
- Identify the actual/potential risks associated with uncontrolled changes in procedures.
- Explain the document controls associated with a procedure change.
- Explain the purpose of Standard Operating Procedures (SOP's) and/or Standard Operating Instructions (SOI's).
- Explain the actual/potential problems if SOP's or SOI's or their equivalent are non existent.
- Describe SOP's or SOI's or their equivalent.
- Explain the data the enterprise uses to record performance.
- Explain workplace, regulatory and customer requirements critical to the workplace's operation and success.
- Explain the necessary scope of the quality system/food safety system to ensure the above requirements are met.
- Outline team requirements/criteria and team management processes or strategies.
- Prepare reports using primary and summary data.
- Utilise available technology to record, manipulate, analyse and present or report data.
- Explain enterprise recall and traceability procedures.
- Review communication systems (spoken and written) to minimise the potential for misreporting and misunderstanding of food safety requirements, procedures and plans.

## Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Communicate quality system/food safety system requirements clearly and precisely to workers.
- Identify the necessary scope of the quality system/food safety system to ensure requirements are met.
- Monitor the accurate and timely recording of quality data.
- Assemble in-process inspection/test and other quality data in prescribed format.
- Prepare process and product status report recommending changes to improve processes/procedures.

- Establish and manage relevant project teams to develop and implement or update the necessary elements of the quality system/food safety system.
- Determine and take corrective action.
- Calibrate equipment accurately and verify calibrations.
- Monitor records and documentation for accuracy and compliance.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 3

Communicating ideas and information ..... 2

Planning and organising activities ..... 3

Working with others and in teams ..... 3

Solving problems ..... 3

Using mathematical ideas and techniques ..... 2

Using technology ..... 2

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- 'Oversee Quality Assurance Process', Meat Processing (Abattoirs) Resources CD – Certificate 4, Compulsory Core, Copyright DETYA, (available from MINTRAC 02 9713 7639).
- 'Oversee Quality Assurance Process', Meat Processing (Smallgoods) Resources CD – Certificate 4, Compulsory Core, Copyright DETYA, (available from MINTRAC 02 9713 7639).
- 'Apply Mathematical Processes, Meat Processing (Smallgoods) Resources CD – Certificate 4, Compulsory Core, Copyright DETYA, (available from MINTRAC 02 9713 7639).

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# MTMMP1B Maintain personal equipment

## Unit descriptor

This unit describes the competencies necessary to maintain, clean and store personal equipment including personal protective equipment.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Maintain personal equipment | 1.1 Personal equipment is maintained to ensure:<br>– manufacturer's specifications are met<br>– OH&S, hygiene and sanitation and workplace requirements are met<br>– regulatory requirements are met.<br>1.2 Maintenance activities are appropriate to the equipment used. |
| 2 Store personal equipment | 2.1 Personal equipment is stored in accordance with workplace and regulatory requirements. |
| 3 Clean personal equipment | 3.1 Personal equipment is cleaned to ensure that manufacturer's specifications, workplace requirements, OH&S and hygiene and sanitation requirements are all met. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

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Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesales
- food services establishments.

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Industry sectors may include:

- meat wholesale estimates
- meat retail estimates
- supermarkets
- smallgoods manufacturers
- slaughter floors
- boning rooms
- chillers.

Personal equipment may include:

- personal protective equipment
- chains
- pouches
- handsaws
- steels.

Work instructions, standard operating procedures and reports may be:

- directly related to own
- routine, simple and brief
- in everyday workplace language, including some mathematical language
- presented orally
- presented in routine standard proformas using accurately copied information, symbols, numbers, abbreviations, sketches, codes and everyday workplace language
- completed with the assistance of others.

Communication technology may be used.

## PRE/CO-REQUISITES

MTMMP2B Apply hygiene and sanitation practices

MTMMP3B Apply quality assurance practices

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain maintenance techniques for personal equipment.

- Outline hygiene and sanitation, OH&S, workplace and regulatory requirements related to maintaining, cleaning and storing personal equipment.
- Identify manufacturer's specifications for use, maintenance, cleaning and storage of personal equipment.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Demonstrate the procedures for maintaining personal equipment.
- Demonstrate hygiene and sanitation and OH&S requirements in using, maintaining, cleaning and storage of personal equipment, including personal protective equipment.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 1

Communicating ideas and information ..... 1

Planning and organising activities ..... 1

Working with others and in teams ..... 1

Solving problems ..... 1

Using mathematical ideas and techniques ..... 1

Using technology ..... 1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- 'Care for Personal Equipment' Trainer's Guide and Learner's Workbook, Australian Training Products, www.atpl.net.au
- 'Maintain Personal Equipment', Meat Processing (Abattoirs) Resources CD, Certificate 2, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462).

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# MTMMP2B Apply hygiene and sanitation practices

## Unit descriptor

This unit outlines the personal hygiene and sanitation practices required by workers in a meat establishment. It also covers cleaning of equipment and immediate work areas during operations. *MTMMP2B Apply hygiene and sanitation practices* is a customisation and extension of the cross industry food safety guidelines unit *GFSBFSPA Follow basic food safety practices.* The outcomes are not equivalent.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Clean own work area and equipment during operations | 1.1 Worksite is hygienically cleaned during operations to workplace and regulatory requirements.<br>1.2 Equipment is hygienically cleaned to regulatory and workplace requirements. |
| 2 Identify sources of contamination and spoilage | 2.1 Contamination and cross-contamination risks are identified and steps taken to reduce the risk.<br>2.2 Corrective action is taken when contamination is identified in accordance with workplace and regulatory requirements. |
| 3 Follow workplace's hygiene and sanitation requirements | 3.1 Personal hygiene practices are followed to workplace requirements.<br>3.2 Product is handled in accordance with workplace, hygiene and sanitation requirements.<br>3.3 Individual's work is conducted hygienically in accordance with workplace requirements.<br>3.4 Products are processed in accordance with regulatory requirements. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc

- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Worksite includes:

- immediate working area
- overall workplace.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Sources of contamination may include:

- physical agents which may include ingesta, excreta, dust, grease, etc.

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- foreign bodies
- chemical agents – which may include chemicals such as insecticides, cleaning agents
- microbiological and biological agents.

Steps taken to reduce the risk may include:

- hand washing
- good housekeeping practices
- maintaining clean clothes and PPE.

Corrective action may include:

- trimming product
- disposing of contaminated product.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesalers
- food services establishments.

Routine explanations and reports may be:

- in everyday workplace language and include mathematical language and commonly used technical terms
- presented orally
- presented in writing using standard formats or proformas, diagrams, symbols and charts
- a compilation of information from several sources
- directly related to own work and work area problem solving
- completed with the assistance of others.

Mathematical operations and tasks relate to own work and work area problem solving.

Calculators and computer software packages may be used.

Mathematical operations, tasks and language may include:

- routine estimations and calculations using a range of specified formula and procedures
- operations involving percentages, comparisons and variations
- accurate recording of temperature, time, volume, weight and quantity in standard formats/proformas
- reading and interpreting analog and digital measures including clocks, scales, pressured gauges, thermometers, cash registers

- interpreting and drawing conclusions from routine charts, bar graphs, pie charts, etc.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain hygiene and sanitation requirements for own area.
- Explain the consequences of failing to follow workplace requirements for hygienic handling and processing of meat.
- Explain the consequences of contaminated or spoiled meat leaving the establishment.
- Identify possible sources of contamination and cross-contamination in the worksite.
- Outline the sources of physical and microbiological contamination in meat establishments.
- Identify visual evidence of contamination.
- Identify causes of food spoilage.
- Explain reporting procedures for contamination as appropriate.
- Explain the chemical contamination risks to product.
- Explain the time/temperature/moisture requirements for bacterial growth.
- List bacteria which may affect meat.
- Outline the scope and coverage of Australian Standards for Hygienic Production of Meat for Human Consumption.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Demonstrate basic hygiene and sanitation practices in all activities undertaken in the workplace.
- Consistently follow workplace, hygiene and sanitation procedures.
- Demonstrate hygienic cleaning during operations of own work area and equipment.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

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Collecting, analysing and organising ideas and information.....1
Communicating ideas and information .....1
Planning and organising activities.....1
Working with others and in teams.....1
Solving problems.....1
Using mathematical ideas and techniques.....1
Using technology.....1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- Meat Processing (Abattoirs) Resources CD or Meat Processing (Smallgoods) Resources CD, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462).
- Hygiene and Sanitation Interactive CD (available from MINTRAC 1800 817 462).
- 'Australian Standard for Hygienic Production of Meat for Human Consumption' (available from CSIRO Publishing 03 9662 7666).
- 'An Introduction to Microbiology Hygiene and Quality Assurance' video (available from Meat & Livestock Australia 02 9463 9393).

# MTMMP3B Apply quality assurance practices

## Unit descriptor

This unit deals with the knowledge and practices required to apply quality assurance procedures in a meat establishment. *MTMMP3B Apply quality assurance practices* is a customisation and extension of the cross industry food safety guidelines unit *GFSMFSRA Monitor food safety requirements.* The outcomes are not equivalent.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Identify hazards and control points | 1.1 Hazards to food safety and quality are identified for a person's work area according to workplace and regulatory requirements.<br>1.2 Control points for a person's work area are identified according to workplace requirements. |
| 2 Identify elements of the quality assurance (QA) system | 2.1 Elements of the QA system are identified and related to workplace requirements.<br>2.2 Specifications for own work area are identified. |
| 3 Follow requirements of a Hazard Analysis and Critical Control Points (HACCP) based QA system | 3.1 Workplace requirements of the QA system are identified and followed.<br>3.2 Non-conforming products are reported to supervisor where this forms part of workplace requirements.<br>3.3 Consequences of not following workplace requirements are understood. |
| 4 Identify quality control practices in a HACCP based QA system | 4.1 Measures for quality control are identified.<br>4.2 Inspection and re-inspection procedures are identified. |
| 5 Perform inspection of own work | 5.1 Inspection of own work is carried out as prescribed in workplace requirements.<br>5.2 Corrective action is taken as laid down in workplace requirements. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

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OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice, etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements

- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Variations in QA systems may include:

- monitoring regimes
- inspection regimes
- state and AQIS quality assurance manual requirements
- meat processing, smallgoods manufacturing and meat preparation techniques.

Elements of the QA system may include:

- HACCP charts
- mission statement
- work instructions
- standard operating procedures
- corrective action
- monitoring procedures.

Inspection may include:

- visual/sight
- sample to be sent for testing.

Measures for monitoring quality control may include:

- receival procedures
- temperature monitoring program.

Corrective action may include:

- reporting procedures
- storage within time parameters.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesalers

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- food services establishments.

Mathematical operations and tasks relate to own work and work area problem solving.

Calculators and computer software packages may be used.

Mathematical operations, tasks and language may include:

- routine estimations and calculations using a range of specified formula and procedures
- operations involving percentages, comparisons and variations
- accurate recording of temperature, time, volume, weight and quantity in standard formats/proformas
- reading and interpreting analog and digital measures including clocks, scales, pressured gauges, thermometers, cash registers
- interpreting and drawing conclusions from routine charts, bar graphs, pie charts, etc.

Mathematical information includes:

- voltage and current levels
- inflow/outflow of product
- grading specifications
- tare weights
- net weights
- tagging and labelling
- waste
- yield
- sampling
- supply and flow of consumables
- volume
- temperature
- time
- recipes.

Work instructions, standard operating procedures, explanations and reports may be:

- routine, simple brief
- in everyday workplace language, including some mathematical language
- presented orally
- presented in routine proformas using accurately copied information, symbols, numbers, abbreviations, codes, sketches and everyday workplace language.

Routine explanations and reports may be:

- in everyday workplace language and include mathematical language and commonly used technical terms
- presented orally
- presented in writing using standard formats or proformas, diagrams, symbols and charts
- include information from several sources

- directly related to own work and work area problem solving
- completed with the assistance of others.

## PRE/CO-REQUISITES

MTMMP2B Apply hygiene and sanitation practices

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- List the hazards to food safety and quality for specific work areas.
- Identify control points for a specific task/activity and explain the tests or action taken at these points.
- Explain the potential risk, loss or damage if the required actions are not performed.
- Record and report mathematical information.
- Follow and interpret sequences/pathways in flow charts.
- Demonstrate a knowledge of:
  - the structure of quality systems
  - HACCP charts
  - hazards to food safety
  - critical control points
  - corrective actions for own work
  - monitoring processes.
- Explain any regulatory requirements relevant to the person's work area.
- Explain the reasons for inspection and sampling.
- Explain sampling procedures where sampling is a part of the persons work duties.
- Explain the problems that may arise from not collecting samples correctly.
- Use appropriate technology in the recording of quality assurance information.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Demonstrate the capacity to:
  - follow workplace requirements related to quality assurance.
  - identify hazards to food safety.
  - comply with regulatory requirements.
  - inspect own work to ensure compliance with requirements.
  - identify food safety and quality monitoring processes.
  - interpret, record and report mathematical information.

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## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....2

Communicating ideas and information .....1

Planning and organising activities.....1

Working with others and in teams.....1

Solving problems.....1

Using mathematical ideas and techniques.....1

Using technology.....1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- Meat Processing (Abattoirs) Resources CD or Meat Processing (Smallgoods) Resources CD, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462).
- 'Apply Quality Assurance Practices' Interactive CD (available from MINTRAC 1800 817 462).
- 'An Introduction to Microbiology, Hygiene and Quality Assurance' video, (available from Meat & Livestock Australia 02 9463 9333).
- 'A Guide to Food Quality Assurance' by John Sumner (1995) (available from Chisholm Institute of TAFE 03 9209 5685).

# MTMMP4B Follow safe work policies and procedures

## Unit descriptor

This unit deals with workplace practices which enable an employee to work safely in a meat establishment.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Fulfil OH&S responsibilities and recognise the OH&S responsibilities of key personnel | 1.1 OH&S responsibilities are met according to regulatory and workplace requirements.<br>1.2 OH&S responsibilities of key personnel are recognised and related to in regard to their responsibilities. |
| 2 Follow workplace OH&S policies and procedures | 2.1 OH&S policies, procedures and programs are followed.<br>2.2 Personal Protective Equipment (PPE) is used, maintained and stored as appropriate. |
| 3 Follow legal provisions related to OH&S | 3.1 Relevant provisions of OH&S legislation and codes of practice are followed. |
| 4 Contribute to OH&S | 4.1 OH&S issues are raised with designated personnel in accordance with workplace requirements and relevant OH&S legislation.<br>4.2 Participative arrangements for OH&S are contributed to in the workplace within the organisational procedures and scope of responsibilities and competencies. |
| 5 Follow workplace requirements for hazard identification and risk control | 5.1 Hazards to health and safety in the work area are recognised and reported to designated personnel according to workplace requirements.<br>5.2 Workplace requirements for controlling risks to health and safety are followed accurately. |
| 6 Follow emergency procedures | 6.1 Emergency procedures are followed according to workplace requirements.<br>6.2 Appropriate reporting procedures for emergencies are followed according to workplace requirements. |

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| | |
|---|---|
| 7 Operate machinery safely | 7.1 Machinery is operated according to safe work practices and procedures. |
| | 7.2 Machinery is operated and maintained according to manufacturer's specifications and workplace requirements. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear

- protective boot covers.

Worksite includes:

- immediate working area
- overall workplace.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- hazard policy and procedures
- emergency, fire and accident procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Hazards may include:

- chemicals
- substances
- excessive noise
- poor or inadequate lighting
- poor ventilation
- confined spaces
- extremes of temperatures
- stress
- hazards associated with manual handling
- dust
- use of illicit drugs
- alcohol abuse
- fatigue
- equipment malfunctions
- electrical faults
- radiation
- hazards associate with knives
- zoonotic diseases
- communicable diseases.

Participative arrangements for OH&S may include:

- OH&S representatives
- OH&S committees

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- workplace meetings.

Workplace OH&S policies, procedures and programs may include:

- OH&S policies and programs
- manual handling policies and programs
- OH&S inspectors/audits checklists
- confined spaces entry permit
- emergency procedures
- evacuation plans
- hazardous substances policy and programs
- noise reduction policy and programs
- sexual harassment policy and programs
- drugs and alcohol policy and programs.

Emergency procedures may include:

- evacuation plans
- accident/incident reporting and investigation procedures
- first aid procedures.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesalers
- food services establishments.

Routine explanations and reports may be:

- in everyday workplace language and include mathematical language and commonly used technical terms
- presented orally
- presented in writing using standard formats or proformas, diagrams, symbols and charts
- include information from several sources
- directly related to own work and work area problem solving
- completed with the assistance of others.

Mathematical operations and tasks relate to own work and work area problem solving.

Mathematical operations, tasks and language may include:

- routine estimations and calculations using a range of specified formula and procedures
- operations involving percentages, comparisons and variations
- accurate recording of temperature, time, volume, weight and quantity in standard formats/proformas
- reading and interpreting analog and digital measures including clocks, scales, pressured gauges, thermometers, cash registers interpreting and drawing conclusions from routine charts, bar graphs, pie charts, etc.

Calculators and computer software packages may be used.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain the personal protective equipment that must be worn for different areas in the work site.
- Identify site emergency procedures including evacuation procedures.
- Outline the employee's OH&S legal responsibilities.
- Outline the employer's OH&S legal requirements.
- Explain the procedures for reporting accidents at the worksite.
- Explain safe operating procedures for machinery at the trainee's work station.
- Explain the functions of OH&S committees and representatives at the work site (as appropriate).
- List hazards at the work site and control measures that have been put in place.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Demonstrate the use, maintenance and storing of personal protective equipment required for different areas at the worksite, according to workplace requirements and manufacturer's specifications.
- Follow emergency procedures including evacuation procedures according to workplace requirements.
- Meet the legal responsibilities for employees.
- Report an accident at the worksite according to workplace requirements.
- Operate machinery at the trainee's work station to meet OH&S requirements.

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- Demonstrate safe work practices in all activities at the work site.
- Select, organise and report routine information on OH&S issues.
- Make suggestions for improvement.
- Identify OH&S hazards in own work area and around general plant.
- Follow workplace OH&S policies and procedures.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....1
Communicating ideas and information .....2
Planning and organising activities.....2
Working with others and in teams.....2
Solving problems.....1
Using mathematical ideas and techniques.....1
Using technology.....1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- Meat Processing (Abattoirs) Resources CD or Meat Processing (Smallgoods) Resources CD, Compulsory Core, copyright DETYA (available from MINTRAC 1800 817 462)
- 'Follow Safe Work Policies and Procedures' interactive CD (available from MINTRAC 1800 817 462)
- National Guidelines for Health & Safety in the Meat Industry (1995) National Meat Association & AMIEU.

# MTMMP5B Communicate in the workplace

## Unit descriptor

This unit deals with workplace communication practices. It includes the competencies to identify the enterprise's communication channels, use communication skills to undertake and complete workplace requirements and contribute to positive workplace relations.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Contribute to maintenance and improvement of workplace operations and requirements | 1.1 Problems are solved by communicating with others.<br>1.2 Information, including mathematical information, is exchanged to perform workplace tasks and take appropriate action.<br>1.3 Spoken and written reports are provided clearly and promptly. |
| 2 Identify key personnel in the workplace | 2.1 Workplace's organisational structure, mission statements and strategic plan are explained.<br>2.2 Key personnel are identified and their roles in the organisation are explained.<br>2.3 Role of trainees is explained. |
| 3 Contribute to positive workplace relations | 3.1 Communication styles of cultural, social and ethnic groups are recognised and considered.<br>3.2 Appropriate communication style for context and purpose is applied.<br>3.3 Regulatory and workplace ethical standards are considered in verbal and non-verbal communications. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

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Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Meat establishments may include:

- meat processing plants
- abattoirs
- slaughter floors
- boning rooms
- smallgoods establishments
- retail meat outlets
- supermarkets
- meat wholesalers
- food services establishments.

Information relating to own work may be provided orally or in written, chart, diagram or poster form.

Written information may include:

- work instructions
- reports
- procedures
- policies
- messages
- job requirements
- any written information relevant to own work requirements.

Information relating to own work may include:

- codes of practice
- work instructions
- procedures
- policies
- scales, dials in analog or digital formats
- HACCP charts
- AUS-MEAT language charts
- messages
- grading specifications
- voltage meters and readings
- sample data
- packaging, load out and repackaging documentation
- labels, tags
- inspection schedules
- orders

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- customer service standards
- pricing schedules and tickets
- notices
- industry/agency newsletters.

Audiences may include:

- colleagues
- superiors
- external parties
- customers
- clients
- business associates.

Maths terms include measurements for weight, volume, temperature and time.

Communications may be spoken, written, non-verbal and include signs and signals.

Communication may be with people from a range of cultural, social and ethnic backgrounds or with colleagues, superiors, customers, clients and external parties.

OH&S and hygiene and sanitation policies and work instructions include reporting requirements.

Explanations and reports are made in everyday workplace language including commonly used technical terms and some mathematical terms.

Work instructions, standard operating procedures, explanations and reports may be:

- routine, simple, brief
- in everyday workplace language, including some mathematical language
- presented orally
- presented in routine proformas using accurately copied information, symbols, numbers, abbreviations, codes, sketches and everyday workplace language.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Identify sources of information relevant to own work.

- Identify and explain roles of key personnel in the workplace.
- Describe forms of feedback provided to fellow workers and key personnel.
- Outline workplace standards of behaviour.

**Critical aspects**

- Evidence of the following skills is considered essential to demonstrate competency in this unit.
- Demonstrate effective communication techniques with supervisors and fellow workers.
- Demonstrate the exchange of relevant routine information with others to:
  - explain issues or problems
  - offer suggestions for improvement
  - reach conclusions
  - meet quality and food safety requirements.
- Copy and record workplace information accurately in routine formats and proformas.
- Participate in and contribute to meetings and discussions.
- Use appropriate communication styles when:
  - negotiating sensitive issues
  - working with cultural, social and ethnic groups
  - obtaining views and information from others.

**KEY COMPETENCIES**

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 2

Communicating ideas and information ..... 2

Planning and organising activities ..... 1

Working with others and in teams ..... 2

Solving problems ..... 2

Using mathematical ideas and techniques ..... 1

Using technology ..... 2

**CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT**

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

**RESOURCE IMPLICATIONS AND SUPPORT MATERIALS**

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

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- ‘Communicate in the Workplace’, Meat Processing (Abattoirs) Resources CD, Certificate 2, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462)
- ‘Apply Basic Communication Skills’, Meat Processing (Smallgoods) Resources CD, Certificate I, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462)
- ‘Maintain Communication in the Workplace’, Meat Processing (Smallgoods) Resources CD, Certificate 2, Compulsory Core, Copyright DETYA (available from MINTRAC 1800 817 462).

# MTMMP70B Participate in OH&S risk control process

## Unit descriptor

This unit deals with the competencies required to participate in the reduction of OH&S risks in a meat processing plant.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Participate in workplace inspections | 1.1 Group processes facilitated to identify potential OH&S hazards.<br>1.2 Workplace inspections participated in to identify potential hazards as appropriate.<br>1.3 Reporting obligations are fulfilled.<br>1.4 Risk control processes are implemented. |
| 2 Participate in OH&S risk control process | 2.1 Risk assessment process participated in.<br>2.2 Hazards controlled in accordance with hierarchy of controls.<br>2.3 Workplace procedures for dealing with hazardous events are initiated.<br>2.4 Information is provided to relevant parties in line with action or report to designated personnel. |
| 3 Monitor implementation of safe work practices | 3.1 Compliance with safe work practices demonstrated by example.<br>3.2 Safe work performance by employees is monitored.<br>3.3 Safe work practices implemented in accordance with regulatory requirements. |
| 4 Assist development of safe work practices | 4.1 Changes to work procedures/standard operating procedures developed in line with outcomes of risk control process and regulatory requirements.<br>4.2 Employees consulted in relation to the development of safe work practices.<br>4.3 Employee understanding of safe work procedures on-the-job reinforced. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 5 Contribute to participative arrangements for the management of OH&S | 5.1 Organisational procedures for consultation over OH&S issues are implemented and monitored to ensure that all members of the work group have the opportunity to contribute.<br>5.2 Issues raised through consultation are dealt with and resolved promptly or referred to the appropriate personnel for resolution in accordance with workplace procedures.<br>5.3 Outcomes of consultation over OH&S issues are made known to the work group promptly. |
| 6 Contribute to workplace rehabilitation program as appropriate | 6.1 Contributions are made to workplace rehabilitation programs in accordance with rehabilitation co-ordinator and/or rehabilitation providers. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code’
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations

- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

The company has provided information on legislative and industrial award provisions relating to OH&S.

Training has been provided in hazard identification, accident investigation, risk assessment and OH&S hazard control consistent with the hierarchy of control.

Access to relevant expertise is provided, eg, fitters, electricians.

Responsibilities are carried out within area and boundaries of responsibility.

Formal OH&S reporting hierarchy and procedures are in place.

An OH&S training program is in place.

Hazard control equipment can include dust extractors, machine guards, mechanical aids, acoustic insulation and PPE.

Equipment and storage provisions are consistent with legislative requirements.

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Recommended changes to policies and procedures are referred to the OH&S Committee and management.

Team leaders/leading hands are informed of their OH&S responsibilities.

## PRE/CO-REQUISITES

MTMMP4B Follow safe work policies and procedures

MTMMP5B Communicate in the workplace

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Use facilitation skills to ensure participation from all group members.
- Demonstrate participative problem solving techniques to identify and resolve OH&S issues.
- Identify OH&S hazards in the workplace.
- Explain risk management principles.
- Describe procedures for reporting hazards, accidents and incidents.
- Identify and demonstrate safe work practices associated with work tasks.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Identify relevant hazard control equipment and explain function, safe operation, maintenance and storage requirements.
- Outline process for developing and altering work procedures/standard operating procedures.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....3

Communicating ideas and information .....2

Planning and organising activities.....3

Working with others and in teams.....2

Solving problems.....3

Using mathematical ideas and techniques ..... 2
Using technology ..... 2

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

Support materials for training include:

- 'Participate in OH&S Risk Control Process', Meat Processing (Abattoirs) Resources CD, Certificate 4, Compulsory Core, Copyright DETYA, (available from MINTRAC 02 9713 7639).

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# MTMMP72B Facilitate hygiene and sanitation performance

## Unit descriptor

This unit deals with the competencies required to monitor the hygiene and sanitation performance of a plant.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Interpret statutory and workplace requirements relating to hygiene and sanitation | 1.1 Hygiene and sanitation statutory and workplace requirements are understood and explained to other workers to assist their workplace performance.<br>1.2 Employer and employee rights, responsibilities and obligations are understood and implemented in achieving hygiene and sanitation compliance. |
| 2 Monitor hygiene and sanitation performance | 2.1 Hygiene and sanitation is monitored to workplace and statutory requirements to verify compliance.<br>2.2 Situations requiring action to improve hygiene and sanitation compliance are reported as part of the performance improvement process. |
| 3 Respond to hygiene and sanitation problems | 3.1 Hygiene and sanitation issues are investigated according to established processes and procedures to achieve resolution of the subject under examination.<br>3.2 Recommended action arising from the investigation is followed up and reported to ensure reinforcement and documentation of the outcomes. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs

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- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.
- Hygiene and sanitation requirements may include:
- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace

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Statutory requirements will include relevant hygiene and sanitation, environmental and food safety legislation, and workplace policy, practices and procedures.

Language may include complex technical information associated with hygiene and sanitation.

Typically advanced troubleshooting techniques will be required to undertake investigations.

Advanced communication skills may be used in dealing with management, peers and workers.

Documentation may typically include status reports and technical manuals.

Reporting will be according to statutory and workplace requirements and may be in manual and/or electronic systems.

Requires knowledge of HACCP systems.

## PRE/CO-REQUISITES

MTMMP2B Apply hygiene and sanitation practices

MTMMP3B Apply quality assurance practices

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain the statutory requirements regarding food hygiene and sanitation.
- Explain the statutory requirements related to the site at which person is employed.
- Describe regulatory and commercial implications of inadequate control of hygiene and sanitation.
- Explain the employer and employee rights, responsibilities and obligations regarding hygiene and sanitation.
- Explain purpose of hygiene and sanitation monitoring.
- Implement the monitoring procedures.
- Report monitoring outcomes.
- Define the problem to be investigated.
- Plan approach to the investigation.
- Evaluate the problem.
- Use techniques for individual/team resolution of the problem.
- Follow up post investigation issues.
- Report outcomes of the investigation.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Explain and monitor workplace hygiene and sanitation policies, practices and procedures.
- Identify action required to strengthen hygiene and sanitation compliance.
- Explain the company processes and procedure to conduct a hygiene and sanitation investigation.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 3

Communicating ideas and information ..... 2

Planning and organising activities ..... 3

Working with others and in teams ..... 2

Solving problems ..... 3

Using mathematical ideas and techniques ..... 2

Using technology ..... 2

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

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# MTMMP77B Participate in product recall

**Unit descriptor**

This unit deals with the competencies required to manage a product recall exercise.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Participate in decision about disposition | 1.1 Decision made in relation to whether product is recalled according to workplace and product specification. |
| 2 Simulate a product recall | 2.1 Criteria for a product recall identified according to product specification and workplace requirements. |
| | 2.2 Product to be recalled, identified and traced according to product specification and workplace requirements. |
| | 2.3 Individuals or groups involved in a product recall are identified and their role described. |
| | 2.4 Product development reviewed in consultation with those responsible. |
| | 2.5 Manufacturing methods and quality control methods reviewed to prevent problems occurring. |

**RANGE OF VARIABLES**

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code’
- state regulations regarding meat processing

- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Scope of recall may be plant, workplace or entire industry.

**PRE/CO-REQUISITES**

| | |
|---|---|
| MTMMP2B | Apply hygiene and sanitation practices |
| MTMMP3B | Apply quality assurance practices |
| MTMMP5 | Communicate in the workplace |

**EVIDENCE GUIDE**

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The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Records of product identification and traceability maintained and used for trace forward.
- Records of product recall exercise completed and reviewed for improvements to the recall procedure.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Outline product recall procedure and plan.
- Demonstrate product recall.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....3

Communicating ideas and information .....2

Planning and organising activities.....3

Working with others and in teams.....2

Solving problems.....3

Using mathematical ideas and techniques.....2

Using technology.....2

## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure 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.

- Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through an holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

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# MTMMP78B Conduct an internal audit of a quality system

## Unit descriptor

This unit deals with the competencies required to conduct an internal audit of a quality system.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Plan the audit | 1.1 Scope of the Quality System to be audited is determined in advance according to workplace and regulatory standards. |
| | 1.2 Scope of the Quality System is identified. |
| | 1.3 Responsibilities of those affected and involved in the internal audit are documented and notified to workplace requirements. |
| | 1.4 Procedures, records and documents needed for the audit are identified. |
| 2 Conduct the audit | 2.1 Purpose and method of the audit and how results will be reported and followed-up is explained to necessary parties according to workplace policy and procedures. |
| | 2.2 Scope of the Quality System is identified. |
| | 2.3 Documented systems and procedures are followed to workplace standards. |
| | 2.4 Audit checklists are obtained or developed to workplace specifications. |
| | 2.5 Audit of a quality system is conducted in accordance with workplace and regulatory requirements. |
| | 2.6 Audit activity recorded to workplace requirements. |
| 3 Report on audit findings | 3.1 Report is written on audit findings stating area(s) of the quality system that were audited and outcomes of audit. |
| | 3.2 Report is written with objective, well balanced and factual evidence according to workplace standards. |
| | 3.3 Records of auditing process are kept in accordance with audit findings and workplace and regulatory requirements. |

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| | |
|---|---|
| 4 Take preventative and corrective action | 4.1 Follow-up action is taken as necessary and as specified in workplace policy and procedures.<br>4.2 Corrective action is verified through appropriate workplace channels. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs

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- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Audit may be conducted on all of the Quality System or parts of it.

Audits may cover any activities and products covered by the Quality System. Therefore, they may cover any or all departments of the premises.

Audit will be to assess compliance with any part of the organisation's own procedures or policies and relevant legislation, codes of practice or standards set by the organisation, its customers, its suppliers, or the industry or authorities.

Audit reporting may include:

- complex technical information from a range of sources
- information that has been collated, analysed and summarised
- workplace, technical and mathematical language and data
- oral or written reports, recorded, presented and stored electronically or manually.

Communication requirements include effective interpersonal skills for resolution of sensitive and complex issues.

**PRE-REQUISITES**

| | |
|---|---|
| MTMMP4B | Follow safe work policies and procedures |
| MTMMP5B | Communicate in the workplace |
| MTMCOR402A | Facilitate quality assurance process |
| MTMMP72B | Facilitate hygiene and sanitation performance |

**EVIDENCE GUIDE**

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Outline enterprise ethical standards and the implications for the conduct of internal audits.
- Identify and explain previous audit reports and records of follow-up.
- Explain the stages of planning, conducting, reporting, and follow-up on an internal audit.
- Gather, analyse and record data accurately.
- Store and retrieve audit reports according to workplace requirements/systems.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Communicate audit process, requirements and findings to relevant personnel clearly and accurately.
- Plan, conduct, report, follow-up and close out an internal audit of the workplace's Quality System under ordinary working conditions.
- Follow the workplaces internal auditing policy and procedures.
- Prepare reports in formats, language and styles appropriate to the audience.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 3

Communicating ideas and information ..... 2

Planning and organising activities ..... 3

Working with others and in teams ..... 2

Solving problems ..... 3

Using mathematical ideas and techniques ..... 2

Using technology ..... 2

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## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure 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.
- Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through a holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

# MTMPSR406A Manage and maintain a food safety plan

## Unit descriptor

Food safety is critical to public health and safety and the successful operation of meat industry businesses. This unit covers the skills and knowledge required to manage a food safety plan. This unit is a customisation and extension of the cross industry standard *GSFOFSA Oversee the day to day implementation of food safety in the workplace.* Persons competent in *MTMPSR406A Manage and maintain a food safety plan* will be deemed competent in *GSFOFSA Oversee the day to day implementation of food safety in the workplace.* The relationship is one way.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Manage the implementation of the food safety plan | 1.1 Food safety principles, food safety procedures and requirements including regulatory requirements are explained to the team. |
| | 1.2 Team commitment to and responsibility for food safety is developed. |
| | 1.3 Procedures to support the food safety plan are put in place. |
| | 1.4 Training and mentoring is provided to team to assist implementation. |
| 2 Monitor the food safety plan and take corrective action | 2.1 Team implementation of the food safety plan is monitored. |
| | 2.2 Records are completed accurately and on schedule. |
| | 2.3 Prompt action is taken to correct non-conformance according to enterprise and regulatory requirements. |
| | 2.4 Causes of non-conformance are identified and analysed. |
| | 2.5 Control measures are implemented to prevent future non-conformance. |
| | 2.6 Non-conformance is reported according to enterprise requirements. |
| 3 Maintain the food safety plan | 3.1 Feedback is sought from all personnel to identify potential hazards, corrective actions and controls. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| | 3.2 Processes or conditions which could result in breach of food safety procedures are identified and preventive or corrective action is taken. |
| | 3.3 Corrective action and control procedures are updated to improve food safety. |
| | 3.4 Documentation is completed according to enterprise and regulatory requirements. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

At this level, individuals work within the context of enterprise policies and plans provided to them. These may be simple or complex and may be developed by external agents or consultants, by senior management, directors or owner operators in consultation with personnel at this level.

At this level individuals have considerable responsibility for day to day operations of the enterprise/ department, within the requirements of the enterprise. Typically they will have responsibility for leading, supervising or managing others. The range of skills required by individuals at this level will vary according to the enterprise context.

Industry context includes:

- micro small business employing less than 5
- small businesses employing less than 100
- medium and large enterprises
- cost centres/departments operating semi autonomously within guidelines of parent enterprise/company, eg retail meat departments, boning rooms, corning sections
- industry sectors including meat retail and wholesale, smallgoods manufacturers, boning rooms, food service and meat retail
- domestic and export establishments.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures, policies and plans
- enterprise ethical standards, values and obligations
- OH&S requirements
- quality assurance requirements

- the ability to perform the task to production requirements.

Relevant legislation, regulation, standards, guidelines, controls and codes may include:

- equal opportunity, anti discrimination and sexual harassment
- industrial awards, agreements
- commercial law including fair trading, trade practices
- corporate law, including registration, licensing, financial reporting
- taxation
- consumer law
- environmental and waste management
- animal welfare.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Specific regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs

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- coat and apron
- headwear
- protective boot covers.

Food safety plans are in standard formats and meet mandatory requirements.

Food safety plans are based on Hazard Analysis Critical Control Point (HACCP) principles.

Teams may be two or more people, all personnel in work area, department or small business and may include a food safety or HACCP team.

Food safety recording and monitoring systems may be electronic and/or manual.

Standard operating procedures may relate to personal hygiene, food preparation and processing, pest control, waste disposal, cleaning, maintenance of premises, product recall, customer complaints, calibration.

Reports may be complex, contain technical, mathematical and graphic information and be presented in standard formats according to enterprise and legal requirements.

Communication may be spoken, written, non verbal and include the use of signs, signals, symbols and pictures and involve communication and information technologies.

Communication may be with colleagues, team members, superiors, customers, clients, external parties from a range of cultural, social and ethnic backgrounds.

## PRE/CO-REQUISITES

MTMCOR402A Facilitate quality assurance process

MTMMP72B Facilitate hygiene and sanitation performance

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain the legislation, regulations and codes of practice that apply to the enterprise's food safety plan.
- Explain the HACCP principles and the process for developing a food safety plan.
- Explain food safety risk assessment procedures.
- Demonstrate enterprise monitoring procedures (including sampling, testing and required records and documents) and explain their purpose.
- Utilise problem solving strategies required in investigating non conformance and reviewing the food safety system.

- Explain enterprise recall and traceability procedures.
- Review communication systems (spoken and written) to minimise the potential for mis-reporting and misunderstanding of food safety requirements, procedures and plans.
- Communicate with a range of stakeholders, including customers, to convey food safety requirements and programs.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Explain food safety requirements to the team.
- Use a range of communication and team building strategies to gain team commitment to food safety.
- Identify enterprise standard operating procedures and explain their role in the food safety system.
- Collect, monitor and interpret data to identify trends and non conformance.
- Use detailed product knowledge (including product characteristics and the requirements for safe preparation, processing, storage, handling, display) to monitor food safety.
- Determine and take corrective action.
- Respond to food safety incidents and implement food recall procedures as required.
- Identify and review operations and practices for food safety improvement.
- Demonstrate current technical and process knowledge for the control of hazards and improvement of the food safety system.
- Lead personnel/team in investigation of food safety incidents and potential incidents.
- Monitor records and documentation for accuracy and conformance.

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## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....3

Communicating ideas and information .....2

Planning and organising activities.....3

Working with others and in teams.....3

Solving problems.....3

Using mathematical ideas and techniques.....2

Using technology.....2

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

# MTMPSR5601A Design and manage the food safety system

## Unit descriptor

Food safety is a critical element of product quality and is a priority for all sectors of the meat processing industry. Food safety is also a community issue and public perceptions of the safety of meat and meat products impact on the viability of meat processing enterprises. This unit covers the skills and knowledge required to design and manage food safety programs for a meat industry enterprise including meat processing, smallgoods, retail and food services operations. The unit also covers skills and knowledge needed for working with customers and consumers on food safety issues. The unit incorporates and extends the outcomes of cross industry guideline unit *GFSDFSPA Develop food safety programs.* This unit is identified in the Diploma of Meat Processing (Retail).

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Establish enterprise food safety system requirements | 1.1 Goals, scope and requirements of food safety system are determined, consistent with customer, enterprise and regulatory requirements.<br>1.2 Alternative food safety systems are evaluated against enterprise requirements and preferred system identified.<br>1.3 Development of the food safety system is carefully planned, using team and consultative approaches.<br>1.4 Resource requirements, including staff training requirements, for effective systems operation and maintenance are identified and obtained. |
| 2 Develop food safety systems | 2.1 Food safety responsibilities, obligations and roles are identified and clearly explained to stakeholders.<br>2.2 Processes covered by the food safety system are identified and described.<br>2.3 Food safety hazards are identified for all processes within the scope of the food safety system.<br>2.4 Hazard control measures are identified, developed and validated.<br>2.5 Procedures for preventative action are developed. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 3 Establish monitoring procedures and corrective actions | 3.1 Monitoring procedures are developed and monitoring information is used to inform corrective actions. |
| | 3.2 Corrective actions are developed and implemented to effectively control hazards. |
| | 3.3 Recording and documentation procedures are developed, maintained and secured. |
| | 3.4 Strategies to support workforce in the routine and consistent application of food safety systems are developed, resourced and implemented. |
| 4 Evaluate food safety system | 4.1 Audit procedures are established and audits monitored. |
| | 4.2 Verification procedures and schedules are established and verification information used in the review of the food safety system. |
| | 4.3 Food safety system is reviewed and updated for changes in Australian standards, technical information (including verification data) and process information according to established procedures. |
| | 4.4 Food safety systems are prepared for external review and approval by relevant authorities. |
| | 4.5 Performance information is used to measure performance against policies and goals. |
| 5 Communicate food safety outcomes | 5.1 Interactions with the public, regulatory authorities and agencies are conducted in a positive, cooperative and open manner. |
| | 5.2 Food safety incidents and non compliances are reported promptly to relevant authorities. |
| | 5.3 Customer and consumer feedback is gathered, analysed and included in review of the food safety system. |
| | 5.4 Food safety system outcomes are documented to promote public confidence in enterprise products and services. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

At this level individuals exercise considerable autonomy, responsibility and accountability within enterprise structures and are required to make primary contributions to the values, goals and operations of the enterprise. They will typically have responsibility for the establishment and review of systems for the site or department. They may work with the assistance of external experts to develop plans and strategies. Typically, people at this level will have high levels of autonomy, substantial knowledge of the business, responsibility for overall performance of the small business(es)/department(s) and substantial technical knowledge and experience. The application of skills and knowledge at this level is dependant on considerable understanding of the identified concepts and principles, including technical understanding. They may have responsibility for the planning and management of the work of individuals, teams or departments.

Industry context includes:

- micro small business employing less than 5
- small businesses employing less than 100
- medium and large enterprises
- cost centres/departments operating semi autonomously within guidelines of parent enterprise/company, eg, retail meat departments, boning rooms, corning sections
- industry sectors including meat retail and wholesale, smallgoods manufacturers, boning rooms, food service and meat retail
- domestic and export establishments.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures, policies and plans
- enterprise ethical standards, values and obligations
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Relevant legislation, regulation, standards, guidelines, controls and codes may include:

- equal opportunity, anti discrimination and sexual harassment
- industrial awards, agreements
- commercial law including fair trading, trade practices
- corporate law, including registration, licensing, financial reporting

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- taxation
- consumer law
- environmental and waste management
- animal welfare.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Specific regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Stakeholders may include:

- company owners, directors, shareholders, financiers
- management and employees
- unions and employer associations

- suppliers, customers, consumers
- competitors.

A corrective action plan identifies non conformance, corrective actions, date by which action must be taken and other follow up requirements.

By legislation, food safety systems are written documents which specify how businesses will control all food safety hazards that are reasonably expected to occur within a food enterprise. Food safety programs must provide for the systematic monitoring of controls and actions to correct hazards not under control. Records demonstrating action in relation to or in compliance with the food safety program must be kept.

Food safety systems may be developed within an enterprise's quality assurance system or as a discrete program.

Food safety systems may be developed by personnel within the enterprise or by external consultants.

Food safety systems, procedures and controls apply to:

- location, construction and servicing of meat premises
- equipment design, use and maintenance
- processing, further processing and preparation of food including meat and meat products
- receipt, storage and transportation of food including meat and meat products
- display, packaging and sale of food, including meat and meat products
- handling and disposal of condemned or recalled food (including meat) products.

Strategies to support workforce in the implementation of food safety may include:

- initial and refresher structured training programs
- coaching and mentoring
- implementation of problem solving/work teams to develop and monitor food safety procedures
- development and presentation of procedures in plain language and visuals
- clear signage
- provision of appropriate work areas and equipment.

Scope of the food safety system may include supplier requirements.

Data management systems may be manual or computerised, cover data collection, data monitoring and data analysis and interpretation and include:

- computer software packages including spread sheets, statistical analysis packages
- calculators
- manual measuring equipment (eg, thermometers, pressure gauges, scales)
- monitoring sheets, records etc
- charting and graphing materials
- computerised equipment.

Customer specifications may include:

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- product quality and safety
- importing country requirements
- inspection regimes.

Meat/food safety systems may be:

- for export or domestic processing, smallgoods manufacturing or retail enterprises
- ISO based or non ISO based
- MSEP
- MSQA
- Q Safe, Q Award and Q programs.

Product/process monitoring may be:

- sensory
- on line testing
- microbiological/chemical testing.

Food safety documentation includes:

- amendment registers
- HACCP team register
- product description/use
- process flow charts
- factory/shop floor plan
- Hazard Analysis table
- HACCP audit table
- CCP work instructions
- CCP monitoring forms and additional monitoring requirements
- supporting programs and schedules relating to hygiene, cleaning and sanitation procedures, work instructions, approved chemicals, calibration, pest control, training, product identification and recall.

Preventative action measures include standard operating procedures, work instructions, specifications and approved supplier programs.

Validation is the identification, collection and analysis of objective information to confirm that operations (equipment, processes, procedures) are *able* to provide the required food safety outcomes.

Verification schedules may be defined in legislation relevant to the sector. Verification applies to all aspects of the food safety program including documentation and support programs. Verification includes auditing.

Audit processes include planning, establishing controls, developing the team, conducting entry/exit meetings, control caucus meetings, issuing corrective action requests, preparing reports, giving feedback and input into the improvement of the system.

Technical information includes conditions for bacterial food poisoning, including product composition, temperature, time, $a_w$, pH.

Monitoring requirements for food safety hazard includes a description of the method or procedure to be followed, the frequency and timing, the person responsible and the information to be recorded. Procedures to be followed would typically be specified in the form of a standard operating procedure or work instruction.

Monitoring systems and strategies may include:

- inspection and testing procedures and regimes (including chemical and microbiological testing procedures) for validation and verification
- statistical collection and analysis
- audits and reviews
- feedback from stakeholders.

Monitoring and analysis may be manual or electronic and be periodic (hourly, daily, weekly etc) or in real time.

Pathogenic bacteria impact on public health and include:

- Listeria
- E.coli
- Salmonella
- Yersinia
- Clostridium etc.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Outline regulatory requirements for food safety (including HACCP based programs, support programs, record keeping, verification and internal/external audits) and explain the implications for enterprise operations.
- Outline the legal responsibilities for reporting audit findings (including breaches and non compliances to enforcement agencies) and for conflicts of interest, confidentiality, rights of appeal and giving evidence in court.
- Identify the enterprise's ethical standards and the implications for the food safety system.
- Identify the roles, responsibilities and obligations of the enterprise and individuals in the food safety system.
- Demonstrate detailed knowledge of HACCP principles and techniques and where appropriate to the enterprise, Good Manufacturing Practices.

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- Demonstrate substantial product and process knowledge and the microbiological, physical and chemical impacts on the safety of enterprise meat and meat products in the identification of hazards, and the assessment and control of food safety risks.
- Demonstrate detailed knowledge of validation and verification (including audit) purposes and processes.
- Prepare and present food safety system information, procedures, documentation and reports in languages, formats and styles appropriate for the audience and purpose.
- Outline scope, auditor role and responsibility and scheduling requirements for internal and external audit process.
- Use available technology to gather, record, manipulate, interpret and report food safety data and information.

**Critical aspects**

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Consult with stakeholders to determine the scope of the food safety system and identify food handling practices, processing techniques and support programs in use.
- Evaluate alternative food/meat safety systems for suitability for enterprise goals and directions, enterprise operations, enterprise product, cost and customer and regulatory requirements.
- Use appropriate communication skills and strategies for informing and confirming the roles, responsibilities and obligations of all participants in the operation of the enterprise.
- Prepare action plans for the development and review of the food safety system, which include timelines, the establishment, leading and support of the HACCP team.
- Prepare HACCP plans and support documentation including hazard analysis charts and tables, manuals, data analysis reports, corrective action reports and verification reports, standard operating procedures and work instructions where appropriate for the enterprise system.
- Establish procedures for implementing preventative action. Typically this involves revision of materials, processes and/or food handling procedures. It may require revision of workplace practices and documentation such as specifications, operating procedures and approved supplier programs.
- Identify monitoring requirements and develop monitoring procedures for food safety hazards identified in the enterprise.
- Identify all food safety hazards that are likely to occur in enterprise operations and procedures.
- Develop and validate control measures using objective data, industry guidelines and codes of practice.
- Determine measures for correcting processes or outcomes outside acceptable limits or support program requirements including procedure to be followed, when corrective action must be implemented, the person responsible for taking corrective action and the information to be recorded.
- Establish procedures to monitor, review and secure record keeping systems consistent with regulatory requirements.

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- Establish, monitor and continuously improve food safety support systems consistent with regulatory requirements.
- Establish verification procedures and schedules and identify action required if the outcomes of verification indicate that the program requirements have not been met or that the original program was inadequate.
- Establish internal audit processes and schedules, including developing and leading the audit team.
- Prepare the enterprise for external audit and review.
- Identify workforce training needs and negotiate and schedule training, to support system requirements and operation.
- Monitor the implementation of preventative action measures, controls and actions to correct non compliance or non conformances.
- Develop performance standards and criteria for the food safety system.
- Analyse performance information to determine progress and areas for review or improvement.
- Prepare communication strategies to inform internal and external stakeholders of progress and outcomes of the food safety system.
- Liaise with suppliers to establish and monitor enterprise food safety and quality requirements for products and processes.
- Report food safety breaches promptly to relevant internal personnel and regulatory authorities.
- Prepare accurate reports for senior management detailing compliance breaches/incidents, actions and outcomes, and the implications for the enterprise.
- Provide feedback to workforce/team on food safety performance.
- Monitor public health requirements and concerns and prepare reports for enterprise, public health authorities, customers and consumers on progress and outcomes of the food safety system.

This unit may be assessed concurrently with:

- *MTMPS5603A* Develop manage and maintain quality systems.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 3

Communicating ideas and information ..... 3

Planning and organising activities ..... 3

Working with others and in teams ..... 3

Solving problems ..... 3

Using mathematical ideas and techniques ..... 3

Using technology ..... 3

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## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competency is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure consistency of performance, evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of situations.
- Elements of competence contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through a holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

Support materials for training include:

- *ARMCANZ Guidelines for Microbiological Testing for Process Monitoring in the Meat Industry* (1999) CSIRO Melbourne
- *Brochures on Sampling and Testing Meat* (1998) Project TR.005C1 Meat & Livestock Australia
- *Coagulase Positive Staphylococci on Beef Carcases* (1997) Project CS.269 Meat and Livestock Australia

- *Contamination of Beef Carcase During Slaughter and Dressing* (1998) (Video) Project MSHE.006 Meat and Livestock Australia
- *The Effectiveness of Knife Sterilisation Between Spear Cuts During Mutton Dressing* (1997) Project MSQS.012 Meat and Livestock Australia
- *Escherichia coli on Beef Carcases* (1996) Project CS.268 Meat and Livestock Australia
- *HACCP Implementation in Fifteen Meatworks* (1997) MIC.001 Meat and Livestock Australia
- *Improved Handling Techniques to Reduce Employee Contamination of Products* (1998) MSQS.007 Meat and Livestock Australia
- *Management and Employee Attitudes Towards Quality Systems* (1998) MSRE.001 Meat and Livestock Australia
- *Mega Reg - Microbiological Sampling: Two Versus Three Site Sampling* (1997) Project MSHE.009 Meat and Livestock Australia
- *Microbiological Testing for the Meat Industry* (1999) Project M.943 Meat and Livestock Australia
- Mills, C A *The Quality Audit: A Management Evaluation Tool ASQC* Quality Press/McGraw Hill Wisconsin
- *Quality Assurance - Introductory Video* (1996) Project M.947 Meat and Livestock Australia
- *QA Manual* (1995) Project M.582, M137 Meat and Livestock Australia
- *Quality Assurance System Software* (1996) Project M.337 Meat and Livestock Australia
- *Quality Issues: Discussion Paper for Meat Processors* (1994) Project M.581 Meat and Livestock Australia
- *The Quality Continuum - Discussion Pape*r (1994) Project M.847 Meat and Livestock Australia
- *Red Meat Emergency Management Plan* (Emergency Response Plan for Pathogens) Project MSPC.004 Meat and Livestock Australia
- *Safe Beef Carcase - Domestic Chilling Procedures (including Carcase Chilling Calculator)* (1999) Project PMSQS.006B Meat & Livestock Australia
- *Safe Beef Carcase - Export Chilling Procedures* (1999) Project PMSQS.006A Meat and Livestock Australia
- *Sampling and Testing Protocols* (1997) Project MSHE. 003 Meat and Livestock Australia


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# MTMPS5603A Develop, manage and maintain quality systems

## Unit descriptor

The development and management of quality systems affects the ability of the enterprise to operate in specific markets and influences customer and consumer confidence in enterprise products. This unit covers the skills and knowledge required to establish, maintain and control an enterprise quality system. It also covers the skills and knowledge needed to lead people, manage systems and build quality into all enterprise systems and operations.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Establish requirements of the quality system | 1.1 Policies expressing the organisation's commitment to the quality system and processes are developed. |
| | 1.2 Legislative requirements for enterprise quality systems are identified. |
| | 1.3 Scope and objectives of the quality system are determined, including links with all enterprise operations, customers, suppliers and contractors. |
| | 1.4 Quality performance standards, including customer and supplier service standards, are established consistent with the direction and goals of the enterprise. |
| | 1.5 Resource requirements are identified and included in financial, human resource and operational plans. |
| 2 Design and prepare for quality system | 2.1 Quality systems are selected and designed to meet enterprise, customer and regulatory requirements. |
| | 2.2 Quality principles underpin all enterprise operations to achieve business goals and performance standards. |
| | 2.3 Responsibilities for development, implementation and operation of the system are clearly defined and communicated. |
| | 2.4 Personnel from all levels and areas of the organisation are involved in the development and implementation of the quality system. |
| | 2.5 System components, procedures and supporting documentation are developed and validated. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 3 Design and prepare for quality system (continued) | 3.1 Consultative and communication strategies are developed to link quality system with all aspects of enterprise operations. |
| | 3.2 Supplier/contractor service standards and audit requirements are determined and negotiated. |
| | 3.3 Performance measures and indicators are developed to measure performance against policies, goals and performance standards. |
| 4 Implement and monitor the quality system | 4.1 Implementation plan is prepared and resourced. |
| | 4.2 Training plans to provide personnel at all levels with quality concepts and skills are prepared and resourced. |
| | 4.3 Quality system requirements and customer focus are addressed in the establishment, operation and evaluation of all enterprise systems. |
| | 4.4 Control and preventive action measures are identified and validated. |
| | 4.5 Corrective action procedures are developed and monitored. |
| | 4.6 Procedures for reporting, recording and responding to non conformances and non compliances are established. |
| | 4.7 Customer and supplier service standards are monitored and documented. |
| | 4.8 Quality data is collected, analysed and implications reported. |
| | 4.9 Quality costs and performance are monitored. |
| | 4.10 Quality system is prepared for external review and approval by relevant authorities. |
| 5 Continuously improve the quality system | 5.1 Impacts of quality system on enterprise operations are monitored and reviewed. |
| | 5.2 Responses to customer complaints and requests are resolved and used to improve the system. |
| | 5.3 Procedures for the ongoing identification and resolution of issues are established. |
| | 5.4 Quality system is updated for changes in process, technical information, customer and |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| | regulatory requirements. |
| | 5.5 Stakeholders are included in decision making and continuous improvement processes and strategies. |
| | 5.6 Quality results, findings and conclusions are fed into improvement processes. |
| | 5.7 Costs and benefits of the quality system are analysed. |
| | 5.8 Quality goals and targets are continuously reviewed. |
| 6 Communicate quality outcomes | 6.1 Certification of product and processes consistent with quality outcomes is completed according to customer and regulatory requirements. |
| | 6.2 Regulatory authorities and agencies are promptly notified of breaches and non compliance incidents. |
| | 6.3 Quality outcomes are used to promote public confidence in enterprise products and services. |

## RANGE OF VARIABLES

The Range of Variables statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

At this level individuals exercise considerable autonomy, responsibility and accountability within enterprise structures and are required to make primary contributions to the values, goals and operations of the enterprise. They will typically have responsibility for the establishment and review of systems for the site or department. They may work with the assistance of external experts to develop plans and strategies. Typically, people at this level will have high levels of autonomy, substantial knowledge of the business, responsibility for overall performance of the small business(es)/department(s) and substantial technical knowledge and experience. The application of skills and knowledge at this level is dependent on considerable understanding of the identified concepts and principles, including technical understanding. They may have responsibility for the planning and management of the work of individuals, teams or departments.

Industry context includes:

- micro or small businesses employing less than 5
- small businesses employing less than 100
- medium and large enterprises

- cost centres/departments operating semi-autonomously within guidelines of parent enterprise/company, eg, retail meat departments, boning rooms, corning sections
- industry sectors including meat retail and wholesale, smallgoods manufacturers, boning rooms, food service and meat retail
- domestic and export establishments.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures, policies and plans
- enterprise ethical standards, values and obligations
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Relevant legislation, regulation, standards, guidelines, controls and codes may include:

- equal opportunity, anti-discrimination and sexual harassment
- industrial awards, agreements
- commercial law including fair trading, trade practices
- corporate law including registration, licensing, financial reporting
- taxation
- consumer law
- environmental and waste management
- animal welfare.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Specific regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations

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- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Stakeholders may include:

- company owners, directors, shareholders, financiers
- management and employees
- unions and employer associations
- suppliers, customers, consumers
- competitors
- public health authorities.

Communication may occur in a variety of sensitive, conflictive, collaborative and supportive environments, may be formal or informal and involve face to face and technological/electronic methods. Communication strategies are inclusive of the cultural, ethnic and social diversity of individuals and groups.

Communication may require analysis and presentation of complex concepts, technical information, mathematical information and other data in simple or complex formats.

Quality systems may be evolving, in place and/or require further development.

Quality system requirements may include:

- control of documents, data, quality records,
- design and process controls
- coverage of contracts, purchasing, supply, processing, handling, storage, packaging, preservation, storage and delivery of meat and meat products
- training
- inspection and testing, control of non conforming product, preventative and corrective action, auditing
- product identification and traceability

- definition of management responsibilities
- management of links and impacts on all systems within the enterprise.

Third party certification may include:

- national/international quality endorsement
- customer requirements and specifications, including importing country requirements
- licensing/registration requirements
- AQIS accountabilities, inspection stamps/seals
- product description and certification.

Statistical quality control concepts may include:

- management
- process stability, capability and management
- sampling
- variations and variation monitoring
- distribution
- probability and statistical interference
- statistical process control requirements, charting, applications
- correlation and regression analysis, bi and multi variate analysis
- estimating and hypothesis testing
- reliability planning.

Data manipulation skills may relate to complex actual and hypothetical technical and financial modelling, calculations and interpretation/analysis. Mathematical information may be complex and relate to product and product quality, financial operations, personnel, operations, sales and turnover, exports etc.

Data management systems may be manual or computerised, cover data collection, data monitoring and data analysis and interpretation and include:

- computer software packages including spread sheets, statistical analysis packages
- calculators
- manual measuring equipment (eg, thermometers, pressure gauges, scales)
- monitoring sheets, records etc
- charting and graphing materials
- computerised equipment
- bar coding, identification, tagging and traceback systems.

Data analysis and interpretation may include:

- microbiological analysis, eg, TVC, ecoli counts
- AQLs
- CL levels

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- temperature eg, cooling and chilling rates
- product monitoring
- process capability analysis
- process variation analysis
- statistical process control.

Monitoring and analysis may be periodic (hourly, daily, weekly etc) or in real time (electronically).

Quality communication strategies may include:

- quality meetings/circles
- development of quality teams
- problem solving teams/sessions
- training
- newsletters, bulletins, awards.

Reports may be complex, contain information from a range of technical sources and include mathematical and graphic information and data. Reports are presented according to legal and enterprise requirements.

Process capability includes:

- technical capability (personnel, equipment, systems, suppliers)
- operational capability (resources, risks, opportunities, commitments).

Systems components and procedures include:

- prevention eg, training, operator feedback, manuals, technology and equipment reliability and maintenance, statistical collection and information, supplier QA, SOPs and work instructions
- correction eg, disposition, corrective action, liability management, customer complaint resolution.

Monitoring systems and strategies may include:

- inspection and testing procedures and regimes (including chemical and microbiological testing procedures) for validation and verification
- statistical collection and analysis
- audits and reviews
- feedback from stakeholders.

Audits of performance may include:

- QA including meat/food safety
- human resource performance
- safety, energy and environment
- compliance with regulatory requirements.

Quality systems may include:

- international standards eg, ISO 9000 series
- Australian, Australian/New Zealand standards
- PQA and AQA
- industry specific standards
- trade description and certification systems
- food/meat safety.

Certification may include:

- AUS-MEAT certification
- importing country requirements
- state/public health requirements.

Quality costs include:

- prevention (eg, training, auditing, process control engineering, testing, reporting, recall systems etc)
- appraisal (eg, design appraisal, inspection, depreciation of quality equipment, process control, end product testing etc)
- failure (eg, scrap/waste, reinspection or retesting, disposal, down time, product downgrading, product liability, loss of custom, returned product, complaints etc).

Performance measures for total quality cost may include:

- quality cost per kg product
- quality cost per dollar direct production costs.

Where the quality system relates to food safety, relevant documentation may include: amendment registers, HACCP team register, product description/use, process flow charts, factory floor plan, hazard analysis table, HACCP audit table, CCP work instructions, CCP monitoring forms and additional monitoring requirements and supporting programs, and schedules relating to hygiene, cleaning and sanitation procedures, work instructions, approved chemicals, calibration, pest control, training, product identification and recall.

Audit processes include planning, establishing controls, developing the team, conducting entry/exit meetings, controlling caucus meetings, issuing corrective action requests, preparing reports, giving feedback and input into the improvement of the system.

Internal and external auditors operate under appropriate internal/external code of ethics.

Quality tools may include cause and effect/fish bone diagrams, control carts, data points, flow charts, histograms, prioritisation matrices, process improvement models, process capability, pareto charts, team structures, etc.

Customers may be internal or external.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

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## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Describe the key concepts, philosophies and tools of quality management.
- Identify the applicable quality standards, regulations, codes, legislation and customer requirements for the quality system and explain the implications for the enterprise.
- Outline the principles and functions of hazard analysis and control, validation (including auditing) and verification in quality systems.
- Outline the legal requirements for the establishment and maintenance of enterprise quality assurance system including responsibilities for reporting breaches to authorities and implementing audit findings.
- Explain enterprise goals and directions and their implications for the quality system.
- Describe the management/organisational structure of the enterprise and its impact on enterprise systems.
- Identify, research and update sources of quality information and advice including technical and regulatory information to support enterprise quality system.
- Plan and resource enterprise training strategy, consistent with regulatory requirements, to assist personnel at all levels in the implementation of the quality system.
- Explain documentation requirements of the quality system (including levels) and their roles in the functioning of the system, including the requirement for effective and secure quality record keeping systems.
- Apply quality concepts and tools to problem solving and the development of quality data collection and analysis strategies.
- Apply substantial product and process knowledge to the development of the quality system and the interpretation of quality data.
- Analyse complex statistical data and prepare corrective responses to non conformances and variations identified in the data, relevant to enterprise quality system and operations.
- Use appropriate questioning, observation, listening and recording skills in the collection and monitoring of quality data.
- Communicate quality goals, requirements and findings to stakeholders in formats and styles appropriate to the context and purpose.
- Describe the role audits play in a quality system.
- Where quality systems are based on HACCP principles or Good Manufacturing Practice, explain these principles and the implications for the enterprise quality system.

## Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Ensure the quality system meets legislative and regulatory requirements.
- Develop quality policies for the enterprise in consultation with senior management and other stakeholders.
- Prepare quality implementation plans, identifying goals, key personnel and areas, resources, strategies, timelines and milestones.
- Lead personnel (eg, HACCP team, management, quality team, meat inspection team, laboratory, maintenance teams and processors/operators) in the implementation and improvement of the quality system.
- Exercise judgement, pragmatism and quality knowledge in the management and resolution of quality issues and problems.
- Oversee audit processes (internal and external), act on audit findings and provide feedback to personnel for improvement of the system.
- Monitor and certify processes and product to meet third party requirements (eg, importing country, public health requirements, customers).
- Develop workforce commitment, capability and responsibility for the quality system. This involves identifying, negotiating and scheduling training, inclusion of responsibilities and duties relating to quality system implementation and integration in all job descriptions and work instructions, clear communication of responsibilities and requirements, delegation of tasks/responsibilities and inclusion of workforce in consultative and continuous improvement processes.
- Prepare and sign off quality policies, manuals and documentation for the enterprise, including the preparation and updating of procedures, preventative and corrective/responsive procedures and strategies, supplier criteria and specifications, supplier/contractor audit requirements.
- Monitor and analyse the costs of the quality system, including prevention costs, appraisal costs and failure costs.
- Develop consultative and feedback procedures and opportunities for identification and resolution of quality issues and problems.
- Consult, negotiate with and report to regulatory authorities openly and promptly, consistent with enterprise ethical standards. This includes the notification of breaches and the preparation of non compliance reports.
- Develop continuous improvement processes. This includes the development of consultative and participative processes, team building and using the plan, do, check, act cycle.
- Resolve customer complaints promptly and provide corrective action responses.

This unit may be concurrently assessed with:

- MTMPSR5601A Design and manage the food safety system
- MTMPS5606A Benchmark enterprise performance

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## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....3
Communicating ideas and information .....3
Planning and organising activities.....3
Working with others and in teams.....3
Solving problems.....3
Using mathematical ideas and techniques.....3
Using technology.....3

## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competency is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure consistency of performance, evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of situations.
- Elements of competence contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through a holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment

- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

Support materials for training include:


- ARMCANZ Guidelines for Microbiological Testing for Process Monitoring in the Meat Industry (1999) CSIRO Melbourne
- *Brochures on Sampling and Testing Meat* (1998), Project TR.005C1 Meat & Livestock Australia
- Chang, R Y *Continuous Improvement Tools: A Practical Guide to Achieve Quality Results*, Vol 1 & 2 (1993) Richard Chang Associates, California
- Chang, R Y *Continuous Process Improvement: a Practical Guide to Improving Processes For Measurable Results* (1994) Richard Chang Associates, California
- Chang, R Y *Satisfying Internal Customers First: a Practical Guide to Improving Internal and External Customer Satisfaction 2* (1994) Richard Chang Associates, California
- Clements, RB *Creating and Assuring Quality* (1990) ASQC Quality Press, Wisconsin
- Coagulase *Positive Staphylococci on Beef Carcases* (1997) Project CS.269 Meat and Livestock Australia
- *Continuous Quality Improvement - For Strategic Alliances* (1996) Project M.917 Meat and Livestock Australia
- *The Effectiveness of Knife Sterilisation Between Spear Cuts During Mutton Dressing* (1997) Project MSQS.012 Meat and Livestock Australia
- *Escherichia coli on Beef Carcases* (1996) Project CS.268 Meat and Livestock Australia
- *HACCP Implementation in Fifteen Meatworks* (1997) MIC.001 Meat and Livestock Australia
- Hand, M and Plowman, B (eds) *Quality Management Handbook* Butterworth Heinemann, Oxford 1992
- Hutchins, *G ISO 9000: A Comprehensive Guide to Registration, Audit Guidelines and Successful Certification* (1992) Oliver Wight, Essex Junction
- Hutton, DW *The Change Agents Handbook: a survival guide for quality improvement champions* (1994) ASQC Quality Press, Wisconsin
- *Integrated management systems* (1996) Project M.939 Meat and Livestock Australia
- Juran, J *Quality Control Handbook* (1989) 4th edition, McGraw Hill New York
- Juse, J *TQC Solutions: The 14 Step Process* (1985) Productivity Press Cambridge USA
- *Improved Handling Techniques to Reduce Employee Contamination of Products* (1998) MSQS.007 Meat and Livestock Australia
- McConnell, J *The Seven Tools of TQC* (1992) Delaware books, Sydney
- *Management and Employee Attitudes Towards Quality Systems* (1998) MSRE. 001 Meat and Livestock Australia
- *Mega Reg - Microbiological Sampling: Two Versus Three Site Sampling* (1997) Project MSHE.009 Meat and Livestock Australia


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- *Microbiological Testing for the Meat Industry* (1999) Project M.943 Meat and Livestock Australia
- Mills CA *The Quality Audit: A Management Evaluation Tool ASQC* Quality Press/McGraw Hill Wisconsin
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# MTMS2B Apply mathematical concepts

## Unit descriptor

This unit outlines the competencies necessary for meat industry workers to record, calculate and interpret basic data in the performance of the job. This unit is suitable for personnel employed in all sectors of the industry including meat processing, smallgoods manufacturing, retail, wholesale and food service enterprises.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Implement work instructions and workplace requirements | 1.1 Mathematical information in relevant work instructions, standard operating procedures and documentation is recognised and used to complete workplace tasks.<br>1.2 Basic mathematical data is recorded and reported accurately according to workplace requirements.<br>1.3 Basic mathematical operations are used to perform workplace tasks. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code’
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations

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- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements may include:

- work instructions
- standard operating procedures
- enterprise specific procedures.

Worksite includes:

- immediate working area
- overall workplace.

Units of measure include:

- measures for temperature, length, weight, volume and time (using 12 or 24 hour clock).

Mathematical signs, symbols and language:

- mathematical signs, symbols and language include abbreviations, technical language and everyday language
- mathematical language includes terms relating to quantity (whole numbers including decimals and percentages), measurement and comparison (eg more/less, over/under).

Mathematical concepts include:

- standard and out of standard performance
- sampling, eg representative and random samples
- under/over weight
- acceptable limits (eg chiller temperatures, cooking temperatures, temperature in display windows)
- ratios (eg in preparation of cleaning solutions, mixing corning brines, smoke times per kilo)

- percentages, estimation, rounding off (eg to nearest 5 cents)
- tally.

Mathematical operations and processes include:

- addition, subtraction, multiplication and division
- application to product characteristics and procedures
- estimation and calculation
- mathematical "equipment" used to perform operations may include calculators, cash registers, scales and pricing/ticketing machines, computer software programs.

Mathematical information:

- may be presented and recorded in simple, short, routine documentation and include dates, prices, weights and measures, times, quantities, temperatures
- may include use by dates, lot numbers, day numbers, orders, specifications, log books, quality check lists, batch sheets, statistical control sheets, tables and graphs (including waste and production graphs and tables)
- may be found in scales, display case/chiller temperature check sheets, temperature dials or controls, thermometers, cash registers, delivery and supply dockets, invoices, orders, petty cash dockets, receipts, use by dates, rosters, pay slips, price tickets and tags, product and pack labels, specifications.

Measuring equipment may be digital or analogue and include scales, thermometers, temperature probes, fat measures, weight controls.

Mathematical tasks may include:

- Retail:
  - calculation of charges and change for customers
  - weighing and supply of product
  - monitoring temperatures in display windows, chillers
  - participation in stock takes
  - receipt of products, checking quantities and weights
  - make up of orders
  - preparation of recipes, marinaded products, smoked, cured, corned or cooked products
  - application of sanitising and cleaning products
  - calculation of opening hours, own working hours and wages, cooking/chilling times
  - copying of mathematical information including time sheets, orders and dockets, price tickets
  - measurement according to specifications, eg fat depth, controlled portions.
- Smallgoods
  - recording batch numbers and codes
  - making stock counts
  - reading recipes and measuring ingredient quantities
  - monitoring cooking temperatures and times
  - making up orders for dispatch
  - checking, labelling carton weights

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  - measuring waste
  - mixing, cleaning and sanitising solutions.
- Abattoirs and Boning Rooms
  - checking tails/tags
  - monitoring carcase weight
  - checking chiller temperature
  - mixing cleaning and sanitising solutions
  - operating and checking stunning equipment
  - pre operational checks
  - measuring fat depth
  - maintaining supplies of materials
  - packing, selecting, labelling and despatching cartons.

Retail store policies may include:

- rounding off policies, eg lowest/highest/nearest five cents
- discounts
- calculation of price on trimmed or untrimmed weight pricing.

Routine explanations and reports may:

- be in everyday workplace language and include mathematical language and commonly used technical terms
- be presented orally
- be presented in writing using standard formats or proformas, diagrams, symbols and charts
- include information from several sources
- be directly related to own work and work area problem solving
- be completed with the assistance of others
- involve communication with people from a range of cultural, social and ethnic backgrounds and with colleagues, superiors, customers, clients and external parties. Communication technology may be used.

## PRE/CO-REQUISITES

There are no pre-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Identify units of measure used in the workplace.
- Record/copy mathematical information accurately.

- Recognise numbers and mathematical symbols.
- Recognise and apply mathematical language relevant to own work situation.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Recognise mathematical information presented in graphs, eg recognise targets and acceptable limits, trends, increases and decreases in sales, production etc.
- Draw conclusions from basic mathematical data.
- Report mathematical data where required.
- Complete basic mathematical operations required in own work, with or without a calculator.
- Demonstrate the operation of basic measuring equipment used in own work.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 1
Communicating ideas and information ..... 1
Planning and organising activities ..... 1
Working with others and in teams ..... 1
Solving problems ..... 1
Using mathematical ideas and techniques ..... 1
Using technology ..... 1

## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competence is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of the individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure 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.
- Elements of competency contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

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### Unit assessment

Evidence is most relevant when provided through an holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

Support materials for training include:

- Meat Processing (Smallgoods) Resources CD – Certificate I (available from MINTRAC 1800 817 462).

# MTMS34B Prepare product formulations

## Unit descriptor

This unit outlines the competencies necessary to prepare product formulations in a meat establishment.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Prepare product formulations | 1.1 Recipes and product specifications are followed to formulate products in accordance with workplace and regulatory requirements. |
| | 1.2 Products are formulated in accordance with hygiene and regulatory requirements, product specifications and workplace requirements. |
| | 1.3 Ingredients are checked to ensure they meet product specifications and regulatory requirements. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code’
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations

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- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Types of ingredients may include:

- additives
- spices
- binders.

Additives may include:

- salt
- phosphate
- curry
- water
- antioxidants
- non meat proteins
- GDL

- $GO_2$
- sugar
- spices
- binders.

Explanations, descriptions and reports may:

- be presented orally
- be presented in writing, in standard formats
- be in diagrammatic, sketch, tabular, graphic formats
- include information and mathematical data gathered, interpreted and summarised from a range of complex and unfamiliar sources.

Communication may be with a range of cultural, social and ethnic backgrounds.

Mathematical operations and tasks relate to own work and work area problem solving and monitoring.

Calculations and computer software packages may be used.

Mathematical operations, tasks and language may:

- relate to product formulation and specification
- require monitoring, adjusting and calibrating of formula, specifications, outputs and equipment
- involve estimation and calculation
- require synthesis and analysis of mathematical information from more than one source
- involve the use of familiar and unfamiliar complex formula
- require interpretation and drawing conclusions from a range of simple and complex mathematical tabes, charts, bar graphs, pie charts, etc.

## PRE/CO-REQUISITES

| | |
|---|---|
| MTMMP2B | Apply hygiene and sanitation practices |
| MTMMP3B | Apply quality assurance practices |
| MTMMP4B | Follow safe work policies and procedures |
| MTMMP5B | Communicate in the workplace |
| MTMMP6B | Overview the meat industry |
| MTMS2B | Apply mathematical concepts |

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

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- Explain the functions, dangers and legal implications of various ingredients.
- Explain the usage and purpose of various additives, spices, binders and ingredients in the products.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Follow recipes and product specifications to formulate products.
- Demonstrate ability to formulate products.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....2

Communicating ideas and information .....2

Planning and organising activities.....1

Working with others and in teams.....3

Solving problems.....2

Using mathematical ideas and techniques.....1

Using technology.....2

## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competency is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure consistency of performance, evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of situations.
- Elements of competence contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through a holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

Support materials for training include:

- *'Prepare Product Formulations'* (DP4863015LRG) (available from Australian Training Products, www.atpl.net.au)
  OR
- *Meat Processing (Smallgoods) Resource CD*, February 1999, copyright ANTA (available from MINTRAC 1 800 817 462.

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# MTMS38B Smoke product

## Unit descriptor

This unit outlines the competencies necessary for workers preparing products which are smoked, such as ham, bacon and smallgoods products.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Select meat | 1.1 Meat is selected according to product specifications. |
| | 1.2 Meat is prepared according to product specifications where this forms part of the work instructions. |
| 2 Prepare ingredients | 2.1 Ingredients are prepared according to product specifications and according to workplace requirements. |
| 3 Prepare facility | 3.1 Machinery/equipment/cooking facility is prepared according to product and manufacturer's specifications. |
| 4 Monitor smoke cycle | 4.1 Product is checked to ensure correct spacing prior to loading. |
| | 4.2 Product is loaded in a manner that ensures even cooking. |
| | 4.3 Product is handled at all times according to health and hygiene requirements. |
| 5 Smoke product | 5.1 Core temperature probes are inserted into the centre of the product as appropriate to product specifications and workplace requirements. |
| | 5.2 Machinery is programmed where applicable in accordance with manufacturer's and product specifications. |
| | 5.3 A variety of products are cooked/steamed to workplace requirements and customer specifications at a speed commensurate with production requirements. |
| | 5.4 The process is monitored and recorded according to workplace requirements. |

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 6 Monitor smoke cycle | 6.1 Smoke cycle is monitored regularly and results noted or deviations from the program are corrected. |
| | 6.2 Internal temperature is manually checked in accordance with workplace requirements to ensure correct smoke time has been achieved and, where necessary, further cooking is undertaken. |
| | 6.3 When product type and processing procedures require, a shower cycle is initiated according to process specifications. |
| 7 Chill product | 7.1 On completion of smoke cycle, product is correctly weighed and either:<br>chilled immediately; or<br>cooled at ambient temperature to a specified internal temperature before chilling according to product specifications. |
| | 7.2 Product is held at a specific and constant temperature according to product specifications. |
| | 7.3 Product is stored according to product specifications. |
| | 7.4 Product is identified and stacked according to product specifications and workplace requirements. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’

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- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Product may include:

- pork – hand, spring
- beef – brisket, tongues
- lamb – legs, tongue
- veal

- mutton
- game meat
- other meat species or products.

Machines may be automatic or manual.

Machine set up may include programming automatic machines to specifications.

Equipment and machinery used in processing may include:

- smokers
- cookers
- moulds
- probe thermometers.

Product specifications may vary according to customer and workplace requirements.

Equipment to be checked for smoking may include:

- wet bulb reservoir
- liquid smoke jet
- sock
- smoke generator.

Smoke producing raw materials may include:

- sawdust
- woodchips
- solid timber
- liquid smoke
- powder.

Smoke equipment includes:

- sawdust/woodchip burning generators
- friction generators
- smoke generators
- atomising generators.

Product may be chilled by:

- showering with ambient water
- washing in water/brine
- placing in cool room
- immersing in ambient running water
- chill cabinets
- use of intensive coolers.

Explanations, descriptions and reports may:

- be presented orally

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- be presented in writing, in standard formats
- be in diagrammatic, sketch, tabular, graphic formats
- include information and mathematical data gathered, interpreted and summarised from a range of complex and unfamiliar sources.

Communication may be with a range of cultural, social and ethnic backgrounds.

Mathematical applications may include:

- collection, estimation, calculation and interpretation of deviations within cycle, internal temperature, humidity, ambient temperature, weights.

**PRE/CO-REQUISITES**

| | |
|---|---|
| MTMMP2B | Apply hygiene and sanitation practices |
| MTMMP3B | Apply quality assurance practices |
| MTMMP4B | Follow safe work policies and procedures |
| MTMMP5B | Communicate in the workplace |
| MTMS2B | Apply mathematical concepts |

**EVIDENCE GUIDE**

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

**Underpinning Knowledge**

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain the use and purpose of ingredients for smoking meat.
- Describe the meat smoking process.
- Explain the purpose of correct water temperature and correct additive sequence, especially phosphate and smoke.
- Describe the purpose and effect of smoking processes on meat.
- Explain the effects of smoking on shelf life and taste of product.
- Discuss health regulations that apply to smoking of meats.
- Identify mathematical information in work instruction specifications and recipes.
- Explain the relevant workplace requirements related to:
  - wet bulb sock
  - sock
  - smoke jet
  - smoke generator
  - effect of moisture on casings
  - appropriate humidity levels.
- Describe correct smoke procedure for specific product.
- Explain the recording requirements for the smoke process.

- Interpret cooking records where appropriate with respect to relevant product.
- Explain possible effects of inconsistent temperature on product.
- Identify the cause and effects of, and explain the appropriate corrective action for:
  – cycle out of sequence
  – insufficient smoke
  – excess smoke.
- Explain chilling requirements for different products.
- Describe storage procedures for smoked products.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Identify meat cuts used in smoking.
- Select meat according to product specifications.
- Where appropriate, select and prepare ingredients according to product and workplace requirements.
- Identify various ingredients for smoking meat.
- Prepare machinery/equipment/cooking facility according to product and manufacturer's specifications.
- Demonstrate correct loading procedure for both full and less than full smokehouse.
- Activate and operate machine according to manufacturer's and workplace instructions.
- Demonstrate ability to operate smoke facility according to OH&S, hygiene, regulatory, product specifications and workplace requirements, and meet production requirements
- Demonstrate ability to measure and monitor product internal temperature correctly to ensure it meets product specifications.
- Monitor smoking of meat on a regular basis to meet product specifications (including where relevant the interpretation of graphs/flow charts/mimic panels and controls).
- Adjust processing as required to achieve product specifications.
- Store meat according to OH&S, hygiene, regulatory, product specifications and workplace requirements.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 2

Communicating ideas and information ..... 1

Planning and organising activities ..... 1

Working with others and in teams ..... 1

Solving problems ..... 2

Using mathematical ideas and techniques ..... 2

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Using technology.....2

## CONTEXT OF ASSESSMENT

What assessment is appropriate, what evidence should be gathered, how competency is required to be demonstrated and where assessment (on job, off job) should be undertaken for this unit are set out below.

- Competency is demonstrated by performance of all stated criteria according to the range of variables applicable to the workplace.
- Evidence should be gathered attesting to the achievement of competency by the candidate to the standard required for each element and unit of competency.
- Evidence is best gathered using the products, processes and procedures of individual workplace context as the means by which the candidate achieves industry competencies.
- In order to ensure consistency of performance, evidence should be collected over a set period of time that is sufficient to include dealings with an appropriate range and variety of situations.
- Elements of competence contain both theoretical and practical components. The theoretical components may be assessed off the job. The practical components should be assessed in a work environment.

### Unit assessment

Evidence is most relevant when provided through a holistic assessment activity which integrates the elements of competency for each unit. The unit assessment activity will require the candidate to gather evidence of ability to:

- Apply knowledge and skills which underpin the process required to demonstrate competence, including the appropriate key competencies.
- Integrate knowledge and skills critical to demonstrating competence in this unit.

## RESOURCE IMPLICATIONS

This refers to the resources that are necessary for undertaking the assessment. All resources must be provided for the assessment. Workplace based resources should relate specifically to workplace requirements including policies, procedures and programs. Resources may include:

- a real work environment
- relevant equipment and materials
- relevant documentation, such as:
  - workplace policy and procedures
  - manufacturers' instructions/operations manuals
  - regulatory requirements.

Support materials for training include:

- *'Smoke Product'* (4080114TRG & N485219RES & DP4853019LRG) (available from Australian Training Products, www.atpl.net.au).
  OR
- *Meat Processing (Smallgoods) Resource CD*, February 1999, copyright ANTA (available from MINTRAC 1 800 817 462).

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# MTMMP83B Establish sampling program

**Unit descriptor**

This unit deals with the competencies required to establish a sampling program in a meat processing plant.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Establish and implement a valid sampling plan | 1.1 The Australian Standard Sampling Tables AS 1199-1972 and AS 1399-1973 are recognised and used.<br>1.2 Items and purpose of sampling are determined.<br>1.3 Acceptable quality levels are determined to Australian Standard.<br>1.4 Sampling plans are determined.<br>1.5 Sampling and testing is conducted according to workplace requirements.<br>1.6 Test results are recorded and monitored.<br>1.7 Test results are interpreted and reported to relevant personnel. |

**RANGE OF VARIABLES**

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice, etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Sampling may include:

- select carcases to visually inspect
- select cartons to visually inspect
- select carcases, meat or food contact surfaces to take micro swabs.

Relevant Australian standards include AS 1199-1972, AS 1399-1973 or updated replacements.

Enterprise record keeping systems may be electronic or manual.

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Sampling programs may include:

- a range of tests and procedures
- different products or materials
- a range of sampling points
- test methods or procedures which may be developed to meet enterprise and/or regulatory/certification requirements.

Reports may:

- contain complex information from several sources
- include technical, mathematical and workplace language
- mathematical information
- be presented orally or in writing in standard formats
- recorded and stored electronically or manually.

Mathematical information and operations may relate to:

- frequency
- deviations, norms, variations, acceptable limits and tolerances
- test results and readings, monitoring data
- digital or analogue controls, dials, measures.

## PRE/CO-REQUISITES

| | |
|---|---|
| MTMMP1B | Maintain personal equipment |
| MTMMP2B | Apply hygiene and sanitation practices |
| MTMMP3B | Apply quality assurance practices |
| MTMMP4B | Follow safe work policies and procedures |
| MTMMP5B | Communicate in the workplace |

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain the requirements of relevant Australian Standards.
- Demonstrate the preparation and analysis of specimens/samples.
- List and explain routine tests.
- Examine prepared media after incubation (for micro samples/swabs).
- Records results accurately.
- Utilise available workplace technology to establish, record and monitor sampling program data.

- Prepare and present testing and sampling reports.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Establish a sampling plan according to Australian Standards.
- Demonstrate aseptic sampling techniques (for micro samples/swabs).
- Report test results promptly to relevant personnel.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 3

Communicating ideas and information ..... 2

Planning and organising activities ..... 3

Working with others and in teams ..... 2

Solving problems ..... 3

Using mathematical ideas and techniques ..... 2

Using technology ..... 2

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

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# PMBMAINT303B Identify equipment faults

## Unit descriptor

This unit requires the application of planning, technical knowledge and skills to check and isolate routine and non-routine equipment faults used in production and report on the status of equipment. It applies to all sectors of the industry.

This competency is typically performed by operators demonstrating some relevant theoretical knowledge and using a range of well-developed skills requiring some discretion and judgement.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Identify scope of operational check | 1.1 Identify and classify equipment components and operating systems. |
| | 1.2 Match appropriate tests and procedures to the equipment operating systems. |
| | 1.3 Identify special test procedures and parameters in manufacturer's specifications and procedures. |
| | 1.4 Explain the operating principles of hydraulic, pneumatic, mechanical and electrical/electronic systems as related to workplace equipment. |
| | 1.5 Observe and undertake checks on the physical condition of equipment as per procedures. |
| | 1.6 Record preliminary observations. |
| | 1.7 Discuss test procedures with appropriate personnel and obtain necessary permission where required. |
| 2 Plan operational checks | 2.1 Check specifications and notes from preliminary observations and identify areas to be clarified. |
| | 2.2 Plan testing sequence/s noting areas where results and observations should be recorded |
| | 2.3 Identify safe area for testing. |
| | 2.4 Make arrangements for any additional resources (including other employees). |

| | |
|---|---|
| 3 Check unit through full operational range | 3.1 Undertake testing observing relevant safety and operational requirements<br>3.2 Confirm results and findings |
| 4. Identify fault and/or formulate recommendations | 4.1 Identify impact of fault on work schedule.<br>4.2 Record proposals for equipment repair based on faults found, cost/time implications and workplace approval systems.<br>4.3 Explain report to relevant workplace personnel including any options and recommendations.<br>4.4 Undertake repairs where appropriate in accordance with procedures. |

**Range of Variables**

This competency applies to all work environments and sectors within the plastics, rubber and cablemaking industry. It does not include maintenance that would require trade level skills. It is not intended that this competency would cover maintenance that is carried on in a workshop.

Procedures means all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

The processes covered by this unit include, but are not limited to:

- predictive and preventative operational maintenance
- reactive maintenance.

Typical information sources, observed data and plant records may include:

- plant data
- log sheets
- operational and performance reports
- physical aspects such as noise, smell, feel and pressure
- condition monitoring information
- planned maintenance schedules
- standard operating procedures and plant description manuals
- manufacturer's instructions, specifications and service manuals
- machine circuit diagrams for hydraulic/pneumatic and electrical/electronic circuits.

Typical tools and equipment may include:

- hand tools specific for the task
- testing equipment
- measuring and aligning equipment.

All operations are performed in accordance with procedures

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## Evidence Guide

Essential knowledge and enterprise requirements:

- Knowledge and understanding of equipment operation and maintenance practices sufficient to recognise fault and no-fault conditions in standard and non-standard situations and then determine appropriate action which is consistent with operational guidelines is required.
- Knowledge of the enterprise's procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Competence includes the ability for the practical completion of the job to:

- apply and/or explain:
- principles of the operation of the equipment to be maintained
- functions and troubleshooting of internal components and their problems
- routine and non-routine causes of equipment failures and the service conditions which may increase maintenance
- appropriate testing procedures and use of equipment for a range of equipment faults
- operating principles for mechanical, hydraulic, pneumatic, electrical/electronic systems
- urgency and timeliness factors in planning maintenance activities in relation to production requirements
- identify and select testing methods based on cost and time effectiveness
- conduct inspections, checks and tests on equipment as appropriate
- read and interpret circuit diagrams for mechanical, hydraulic, pneumatic and electrical/electronic operating systems
- use technical information and manufacturer's information to locate relevant data
- interpret technical specifications and manufacturer's instructions
- ensure workplace is safe for testing and maintenance of equipment
- identify hazards of the materials and process
- implement appropriate procedures for hazard control
- use PPE, safely handle products and materials, read relevant safety information and apply safety precautions appropriate to the task.

## Critical aspects

It is essential that the procedures be understood and that the importance of critical operational systems is known. Competence must be demonstrated in the ability to recognise potential situations requiring action and then implement appropriate action.

Consistent performance should be demonstrated. In particular look to see that:

- early warning signs of equipment in need of attention/with potential problems are recognised
- appropriate tests are undertaken and tests are analysed appropriately
- proposals for equipment repair are based upon the most appropriate and cost effective method to return equipment to full performance in a timely manner

- items initiated are followed through until final resolution has occurred.

Language, literacy and numeracy requirements

- This unit requires the ability to read and interpret typical equipment specifications schematics and diagrams.
- Writing is required to the level of completing workplace forms and production reports.
- Basic numeracy is required, to the level of calculating equipment throughputs and performance.

**Assessment method and context**

Competence in this unit may be assessed:

- on an operating plant allowing for operation under all normal and a range of abnormal conditions
- by use of a suitable simulation and/or a range of case studies/scenarios
- by 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.

**Resource implications**

This section should be read in conjunction with the range of variables 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.

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# PMLDATA300A Process and record data

## Unit descriptor

This unit describes the competencies required to record and store data, perform basic laboratory computations and accurately present and interpret information in tables and graphs. This unit has been contextualised for the meat industry from the *PML99 Laboratory operations package* and includes a meat industry specific range of variables. The outcomes remain unchanged.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Record and store data | 1.1 Code and transcribe data as directed. |
| | 1.2 Record data in accordance with document traceability requirements. |
| | 1.3 Enter data into laboratory information system or record sheets as directed. |
| | 1.4 Rectify errors in data using enterprise procedures. |
| | 1.5 Store and retrieve data using appropriate files and/or application software. |
| 2 Perform laboratory computations | 2.1 Calculate expressions involving fractions, decimals, percentages, proportions, and concentrations. |
| | 2.2 Calculate the mean, median, mode and standard deviation for given data. |
| | 2.3 Calculate scientific quantities and associated uncertainties using given formulae and data. |
| | 2.4 Ensure calculated quantities are consistent with estimations. |
| | 2.5 Report all calculated quantities using the appropriate units and correct number of significant figures. |
| 3 Present data in tables, charts and graphs | 3.1 Present data accurately in clearly labelled tables and charts. |
| | 3.2 Graph data accurately using the most appropriate scales to span the range of data or display trends. |
| | 3.3 Report all data using the appropriate units and number of significant figures. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 4 Interpret data in tables, charts and graphs | 4.1 Retrieve data from appropriate sources.<br>4.2 Interpret significant features of graphs such as gradients, intercepts, maximum and minimum values, and limit lines.<br>4.3 Recognise and report trends in data. |
| 5 Keep accurate records and maintain their confidentiality | 5.1 Transcribe required information accurately and by the specified time.<br>5.2 Verify the accuracy of records following enterprise procedures.<br>5.3 File and store workplace records in accordance with enterprise procedures.<br>5.4 File all reference documents logically and keep them up to date and safely secured.<br>5.5 Maintain enterprise confidentiality standards. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the ‘National Guidelines for Health and Safety in the Meat Industry’.

Regulatory requirements may include:

- requirements set out in the ‘Australian Standard for Hygienic Production of Meat for Human Consumption’
- requirements in the ‘Australian Standard for Transport of Meat for Human Consumption’
- requirements set out in ‘ANZFA Food Standards Code’
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

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Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs
- coat and apron
- headwear
- protective boot covers.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise specific procedures
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

Worksite includes:

- immediate working area
- overall workplace.

Data may be recorded on:

- worksheets
- entered into spreadsheets
- databases linked to information management systems.

Data includes the results of:

- observations
- analyses
- quality assurance and control assessments
- tests and measurements
- surveys.

Data may be presented in the form of:

- graphs
- histograms

- bar charts
- tables
- pie charts
- control charts.

Data could also take the form of semi-quantitative observations and be expressed on a scale (eg, 1 to 4 or + to ++++).

Computations may be performed with or without a calculator or computer software. Examples of calculates scientific quantities could include:

- % and absolute uncertainties in measurements and test results
- areas ($m^2$) and volumes (mL, L,$m^3$) of regular shapes (eg, packaging)
- dose (mg), average weight, weight %, density, specific gravity, moisture, relative and absolute humidity, viscosity, permeability
- ratios (such as, mass to mass, mass to volume and volume to volume percentages)
- concentration (eg, molarity, g/mL, mg/L, mg/μL, ppm, ppb, dilution mL/L)
- average count, colonies per swab surface, cell counts (live and deal/total)
- process variables (such as, pressure, gauge pressure, velocity, flow rates)
- biological oxygen demand (BOD), chemical oxygen demand (COD), total organic carbons (TOC)
- % content of moisture, ash, fat, protein, alcohol, sulphur dioxide, trace metals (such as calcium or zinc).
- food properties (such as % concentration (dry), friability, bitterness, brix, free amino nitrogen, diastatic power, calorific content and yeast viability).

Records could include information associated with:

- purchase of equipment and materials, service records
- safety procedures
- history of calibration and test results.

Reference materials could include:

- material safety data sheets (MSDS's)
- equipment manuals and warranty, supplier catalogues, handbooks
- sampling and test procedures, standard operating procedures (SOPs)
- enterprise quality manual, customer quality plan
- validation of the equipment and associated software where applicable
- validation of spreadsheets developed in house for assay and process calculations
- OH&S regulations, guidelines and procedures
- Australian and International Standards, NATA technical notes, National Measurement Act.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

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## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain procedures for coding, entering, storing, retrieving and communicating data.
- Explain procedures for verifying data and rectifying mistakes.
- Explain procedures for maintaining and filing records, security of data.
- Explain relevant scientific and technical terminology (such as: specification, precision, accuracy, “out of control”).
- Perform calculations involving fractions, decimals, ratios, proportions and percent.
- Perform calculation of mean, median, mode, range and standard deviation.
- Perform calculation of perimeters, areas, volumes and angles.
- Perform calculation of scientific quantities (eg, concentration).
- Use of scientific notation, unit conversion, multiples and submultiples.
- Use of significant figures, rounding off, estimation and approximation.
- Perform calculation and interpretation of absolute and percentage uncertainties.
- Transpose and evaluate formulae.
- Prepare and interpret trends in graphs, tables and charts (pie, bar, nistogram).
- Prepare and interpret straightforward process control charts.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Code, record and check the documentation of data.
- Use a simple spreadsheet or database program to store and retrieve data reliably.
- Calculate scientific quantities relevant to their laboratory work and present accurate results in the required format.
- Recognise anomalies and trends in data.
- Maintain the confidentiality of data in accordance with workplace and regulatory requirements.
- Keep records up to date and secure.

## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information ..... 1
Communicating ideas and information ..... 1
Planning and organising activities ..... 1
Working with others and in teams ..... 1
Solving problems ..... 1
Using mathematical ideas and techniques ..... 1
Using technology ..... 1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

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# PMLMAIN300B Maintain the laboratory fit for purpose

## UNIT DESCRIPTOR

This unit of competency covers the general cleaning of work surfaces, cleaning and storage of equipment and the monitoring of laboratory stocks under direct supervision.

This unit of competency has no prerequisites.

This unit of competency is applicable to personnel in all industry sectors covered by this Training Package.

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'.

| ELEMENTS<br>Elements describe the essential outcomes of a unit of competency. | | PERFORMANCE CRITERIA<br>Performance Criteria describe the level of performance required to demonstrate achievement of the element. | |
|---|---|---|---|
| 1. | Clean work preparation areas | 1.1 | Clean preparation areas using appropriate cleaning agents and enterprise procedures |
| | | 1.2 | Remove spillages, if they occur, using appropriate agents, personal protective equipment and enterprise procedures |
| | | 1.3 | Collect and segregate wastes in accordance with enterprise procedures, relevant codes and regulations |
| 2. | Clean and store equipment | 2.1 | Collect used equipment, inspect for faults and, where necessary, remove from service |
| | | 2.2 | Use appropriate agents, apparatus and techniques to clean equipment |
| | | 2.3 | Store clean equipment in the designated locations and manner |
| 3. | Monitor stocks of materials and equipment | 3.1 | Perform stock checks and maintain records of usage as directed |
| | | 3.2 | Store labelled stocks for safe and efficient retrieval |
| | | 3.3 | Inform appropriate personnel of impending stock shortages to maintain continuity of supply |

| | |
|---|---|
| 4. Maintain a safe work environment | 4.1 Use established safe work practices and personal protective equipment to ensure personal safety and that of other personnel |
| | 4.2 Report potential hazards and/or maintenance issues in own work area to designated personnel |
| | 4.3 Minimise the generation of wastes and environmental impacts |
| | 4.4 Dispose of wastes in accordance with enterprise procedures, relevant codes and regulations. |

## RANGE STATEMENT

The range of variables relates to the unit of competency as a whole. It allows for different work environments and situations that will affect performance.

Where reference is made to industry Codes of Practice, and/or Australian/international standards, it is expected the latest version will be used.

Personnel work in accordance with work instructions and standard operating procedures which incorporate all relevant aspects of OHS legislation and the codes, guidelines, regulations and Australian standards applying to environmental hazards and dangerous goods.

OHS legislation is state and territory based and includes general OHS Act and hazard specific regulations and Codes of Practice especially those relating to environmental hazards and dangerous goods.

Industry standards, codes and guidelines may include:

- AS 2243 Safety in laboratories Parts 1–10
- AS 2982 Hand washing facilities
- AS 2243.8 Fume hoods
- AS 2252 Biological safety cabinets
- SAA HB9 Occupational personal protection, and other relevant standards for protective, clothing (for example, AS 2161, AS 2210, AS 1337 and AS 1338)
- AS 1678 Emergency procedures guide for hazardous materials
- AS 2500 Storage of goods
- AS 2503 Safety storage and handling of information cards

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- AS 1940 Storage and handling of flammable and combustible liquids
- AS 3780 Storage and handling or corrosive liquids
- AS 4452 Storage and handling of toxic substances
- AS4332 Storage and handling of gases in cylinders
- AS 4187 Code of Practice for cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment and maintenance of associated environments in health care facilities
- standards for the segregation of wastes, such as AS 2243.3 and AS 2243.4
- AS/NEC/ISO 14000
- confined space legislation
- Australian Dangerous Goods Code
- Australian Code for Transport of Dangerous Goods
- guidelines for the operation of classes of laboratories
- Australian Quarantine Inspection Service guidelines for the importation of biological products
- National Code of Practice for the labelling of workplace substances (NOHSC: 2012)
- Office of the Gene Technology Regulator (OGTR) guidelines for working with genetically altered organisms.

This unit of competency forms a major part of the work of laboratory assistants. Equipment, material, procedures and facilities will vary according to the scope and classification of the laboratory. Typical equipment could include:

- animal cages
- autoclaves
- balances
- blenders, centrifuges and separating equipment

- cell counters, staining machines
- dishwashers, refrigerators, freezers, ovens, microwave ovens, incubators, water baths
- fume hoods, biohazard containers, biological safety cabinets
- gas cylinders
- glassware (burettes, pipettes); plastic ware; glass, plastic, quartz cuvettes
- hotplates, mantles, burners, muffle furnaces
- light and fluorescence microscopes
- microtomes, tissue processors
- thermometers, thermohygrographs, instrument chart recorders, hydrometers, pH meters and ion selective electrodes
- ultrasonic cleaners.

Typical materials could include:

- consumable items, such as syringes, pipette tips, weigh boats
- disposable clothing and PPE
- distilled water, reagents, chemicals, disinfectants, detergents, agar media and plates
- equipment spares, such as fuses, bulbs, batteries
- oils/lubricants, fuels, industrial gases, cryogenics, such as dry ice and liquid nitrogen
- paper, stationery
- reference samples and standards.

All maintenance activities, such as cleaning, storing, prevention of contamination are carried out according to established enterprise procedures. Cleaning requirements will vary with the scope of the laboratory and may include:

- decontamination and/or disinfection

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- hygiene monitoring
- operation of automatic cleaning apparatus, such as pipette washer, ultrasonic cleaners, dishwashers
- sterilisation and disposal of wastes using: boiling, high pressure air or steam, microwaves, chemicals, gas, filtration, ultraviolet radiation, autoclaving
- use of specialised techniques, such as chromic acid baths, soaking in hypochlorite.

Preparation areas include benches, sinks and fume cupboards.

Agents for cleaning include decontaminants, organic solvents and cleaning solutions.

Spillages include chemicals, radioactive and biologically active materials.

Wastes include broken glass, sharps, micro-organisms, solvents, excess test samples, spent reagents, disposable PPE, and used containers, boxes, bags, palettes.

Stock records may include:

- usage, loans, breakage
- data sheets
- calibration and maintenance history
- handbooks, warranty documents, catalogues, manuals, MSDSs.

Communication could involve other people, such as:

- laboratory, production, administration, cleaning staff
- internal/external contractors
- emergency personnel.

Maintenance issues could involve:

- spillages, leakages, breakages, contamination
- stock requirements, shortages

- potential hazards, incidents and emergencies
- hygiene issues
- equipment malfunction
- recycling and waste disposal.

Hazards may include:

- electric shock
- microbiological organisms and agents associated with soil, air, water, blood and blood products, human or animal tissue and fluids
- aerosols from broken centrifuge tubes, pipetting
- solar radiation, dust, noise
- sources of ignition, flammable liquids and gases
- sharps, broken glassware and hand tools
- chemicals, such as acids, heavy metals, pesticides, hydrocarbons
- cryogenics, such as dry ice and liquid nitrogen
- fluids under pressure, such as steam, industrial gas cylinders
- occupational overuse syndrome, slips, trips and falls
- manual handling, working at heights and in confined spaces
- crushing, entanglement, cuts associated with moving machinery or falling objects
- pedestrian and vehicular traffic.

Established safe work practices may include:

- ensuring access to service shut off points
- recognising and observing hazard warnings and safety signs
- labelling of samples, reagents, aliquoted samples and hazardous materials

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- use of personal protective equipment, such as hard hats, hearing protection, gloves, safety glasses, goggles, face guards, coveralls, gown, body suits, respirators and safety boots

- applying containment procedures through the use of appropriate equipment, such as biohazard containers, laminar flow cabinets, Class I, II and III biohazard cabinets and Class PCII, PCIII, and PCIV physical containment facilities

- use of material safety data sheets (MSDS)

- handling and storage of all hazardous materials and equipment in accordance with labelling, materials safety data sheets and manufacturer's instructions

- identifying and reporting operating problems or equipment malfunctions

- following established manual handling procedures for tasks involving manual handling

- reporting to appropriate personnel of abnormal emissions, discharges and airborne contaminants, such as noise, light, solids, liquids, water/waste water, gases, smoke, vapour, fumes, odour and particulates

## Health, safety and environment

All operations to which this unit applies are subject to stringent health, safety and environmental (HSE) 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.

All operations assume the potentially hazardous nature of samples and require standard precautions to be applied. Users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council and State and Territory Departments of Health. All operations are performed in accordance with standard operating procedures.

# EVIDENCE GUIDE

The Evidence Guide describes the underpinning knowledge and skills that must be demonstrated to prove competence.

## Critical aspects of competency

Competency must be demonstrated in the ability to perform consistently at the required standard. In particular, assessors should look to see that the candidate:

- safely cleans work preparation areas and equipment using appropriate cleaning agents, apparatus and techniques

- safely removes spillages and disposes of wastes
- minimises the exposure to hazards of self, others and the laboratory
- safely stores equipment and materials using enterprise procedures, relevant codes and guidelines
- monitors and reports stock levels and the condition of laboratory materials and equipment
- keeps accurate, up to date records
- reports potential hazards and maintenance issues using enterprise procedures.

## Underpinning knowledge

Competency includes the ability to apply and explain:

- enterprise procedures for the cleaning of work preparation areas, materials and equipment
- storage requirements for specific materials and equipment
- enterprise procedures for minimisation and disposal of waste
- enterprise procedures for monitoring of laboratory stocks
- information contained in material safety data sheets (MSDSs) for materials handled regularly during the performance of maintenance tasks
- relevant health, safety and environment requirements.

## Assessment context and methods

This unit of competency is to be assessed in the workplace or simulated workplace environment.

The following assessment methods are suggested:

- observation of the candidate's techniques for cleaning and/or removal of spillages and waste disposal
- review of stock records completed by the candidate

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- feedback from supervisors and peers

- questioning to assess underpinning knowledge of regulations and procedures where direct observation is difficult (such as dealing with hazards) and choice of materials and equipment.

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. Questioning techniques should suit the language and literacy levels of the candidate.

**Interdependent assessment of unit**

This unit of competency may be assessed with:

- *PMLOHS302B Participate in laboratory/field workplace safety.*

## Resource implications

Resources may include:

- access to work preparation areas, stocks, materials and equipment

- cleaning, decontamination and/or disinfection agents and apparatus

- personal protection equipment

- stock order firms, labels and records/forms.

## This competency in practice

**Manufacturing**

On receipt of a bulk container of cleaning or sanitising agent, a laboratory assistant always attached to the container a description of its method of use. The assistant also attached a list of the surfaces, apparatus, utensils and machines that could be safely treated with that chemical agent as outlined in the company's quality manual. This practice reduced the likelihood of misuse of the chemical, wastage, damage to equipment and inadequate cleaning and sanitation.

**Biomedical and environmental**

Laboratory assistants and technical officers routinely examine fluids for micro-organisms using a microscope. They examine fluids, such as urine, seawater, chlorinated pool water, water from catchment areas and bottled water. To maintain microscopes in working order,

they thoroughly clean the stage, oculars and each objective after use and sometimes between samples. The 100X objective requires particular care since this is the oil immersion objective. The oil is slightly acidic and will slowly corrode the objective if its not cleaned thoroughly and regularly. After using the 100X objective they also take care not to drag the other objectives through the oil.

**Food processing**

A laboratory assistant regularly uses standard pH solutions to calibrate the laboratory's pH meters. The assistant is aware from the label that the shelf life of these solutions after opening is two months and records the opening and disposal dates on the container. The assistant is also aware that the shelf life of unopened buffer solutions is twelve months from the date of manufacture and monitors this by noting the production date on the bottle. Requests for stock replacement take into account the normal rate of use of these buffer solutions so that unopened bottles have not reached their expiry date before use.

## Key Competencies

The seven key competencies represent generic skills considered for effective work participation. The bracketed numbering against each of the key competencies indicates the performance level required in this unit. These are stand-alone levels and do not correspond to levels in the Australian Qualifications Framework (AQF).

Level (1) represents the competence to undertake tasks effectively

Level (2) represents the competence to manage tasks

Level (3) represents the competence to use concepts for evaluating and reshaping tasks.

| Collecting, analysing and organising information | Communicating ideas and information | Planning and organising activities | Working with others and in teams | Using mathematical ideas and techniques | Solving problems | Using technology |
|---|---|---|---|---|---|---|
| Level 2 | Level 1 | Level 1 | Level 1 | Level 1 | Level 1 | Level 1 |

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# PMLTEST302A Calibrate testing equipment and assist with maintenance

## Unit descriptor

This unit deals with the competencies required to set up and pre-use checks, calibrate testing equipment and assist with its maintenance. This unit has been contextualised for the meat industry from the *PML99 Laboratory operations package* and includes a meat industry specific range of variables. This outcomes remain unchanged.

| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 1 Perform set up and pre-use checks of laboratory equipment | 1.1 Perform laboratory equipment set up and pre-use checks in accordance with enterprise procedures. |
| | 1.2 Perform safety checks in accordance with relevant enterprise and instrumental procedures. |
| | 1.3 Identify faulty or unsafe components and equipment and report to appropriate personnel. |
| | 1.4 Complete instrument log books to enterprise requirements. |
| 2 Perform calibration checks | 2.1 Start up equipment according to operating procedures. |
| | 2.2 Use specified standards for calibration check. |
| | 2.3 Check equipment as per calibration procedures and schedules. |
| | 2.4 Record all calibration data accurately and legibly. |
| | 2.5 Quarantine out of calibration equipment. |
| 3 Assist with equipment maintenance | 3.1 Ensure all equipment work areas are clean during and after equipment use. |
| | 3.2 Perform basic maintenance in accordance with enterprise procedures. |
| | 3.3 Clean and store equipment as per enterprise and/or manufacturer's specifications/procedures. |
| | 3.4 Identify and replace, repair or dispose of damaged/worn equipment as appropriate. |

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| ELEMENTS | PERFORMANCE CRITERIA |
|---|---|
| 4 Maintain records | 4.1 Record and report information on unsafe or faulty equipment as per enterprise procedures. |

## RANGE OF VARIABLES

The Range of Variables Statement provides details of the scope of the Elements and Performance Criteria to allow for differences within enterprises and workplaces, including practices, knowledge and requirements. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

OH&S requirements may include:

- OH&S legal requirements
- enterprise OH&S policies, procedures and programs
- requirements set out in standards, codes of practice etc
- requirements in the 'National Guidelines for Health and Safety in the Meat Industry'.

Regulatory requirements may include:

- requirements set out in the 'Australian Standard for Hygienic Production of Meat for Human Consumption'
- requirements in the 'Australian Standard for Transport of Meat for Human Consumption'
- requirements set out in 'ANZFA Food Standards Code'
- state regulations regarding meat processing
- relevant regulations
- Export Control Act.

Hygiene and sanitation requirements may include:

- relevant government regulations
- workplace requirements.

Personal Protective Equipment (PPE) may include:

- uniforms
- waterproof clothing
- work, safety or waterproof footwear
- protective head and hair covering
- lifting assistance
- eye and facial protection
- protective hand and arm covering
- mesh apron
- ear plugs/muffs

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- coat and apron
- head wear
- protective boot covers.

Worksite includes:

- immediate working area
- overall workplace.

Workplace requirements will include:

- work instructions
- standard operating procedures
- enterprise-specific requirements
- OH&S requirements
- quality assurance requirements
- the ability to perform the task to production requirements.

All operations must comply with relevant standards, appropriate procedures and/or enterprise requirements. These procedures include or have been prepared from Australian and international standards such as:

- AS 2243.10 Storage of Chemicals, AS 2830 Good Laboratory Practice, AS 2243 Safety in Laboratories
- codes of practice (such as GLP and GMP)
- material safety data sheets (MSDS's)
- National Measurement Act
- standard operating procedures (SOPs)
- equipment manuals
- equipment start up, operation and shutdown procedures
- calibration and maintenance schedules
- quality manuals
- enterprise recording and reporting procedures
- production and laboratory schedules
- material, production and product specifications.

All operations are subject to stringent OH&S requirements. Relevant standards may include sections of the OH&S legislation, national standards or codes of practice.

Laboratory equipment and instruments will depend on the nature of the enterprise and the range of testing carried out. Typical equipment may include:

- balances, pipettes, burettes and volumetric glassware
- optical microscopes
- melting point apparatus, viscometers, hardness testing equipment
- conductivity meters, pH meters

- noise meters, blasting meters
- disintegration apparatus, thermometers, incubators, waterbaths
- colorimeters/spectrometers, polarimeters
- compaction rammers, soil classification equipment
- instrument chart recorders, penetrometers, force measuring equipment, tensiometers
- mixing and separating equipment such as centrifuges, rifflers and splitters, mixers.

## PRE/CO-REQUISITES

There are no pre or co-requisites required for this unit.

## EVIDENCE GUIDE

The following components of the Evidence Guide relate directly to the Performance Criteria and the Range of Variables for the unit of competency and will inform and provide guidance for assessment of the workplace and/or training program.

### Underpinning knowledge

The following knowledge and understanding is essential to perform work to the required standard in this unit.

- Explain principles and methods for equipment use.
- Explain basic sources of error in equipment operation and their control.
- Explain role and importance of correct calibration.
- Explain basic equipment maintenance procedures.
- Explain OH&S procedures.
- Explain enterprise communication and reporting procedures.

### Critical aspects

Evidence of the following skills is considered essential to demonstrate competency in this unit.

- Perform set up pre-use checks and shutdown procedures.
- Calibrate basic equipment using standard procedures.
- Obtain readings of the required accuracy and precision.
- Recognise non-standard behaviour of instruments.
- Assist with maintaining equipment in working order.
- Follow all relevant OH&S requirements.
- Follow enterprise recording and reporting procedures.

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## KEY COMPETENCIES

This refers to the seven areas of generic competency that underpin effective workplace practices. The Key Competencies cover the three levels of performance in the following areas:

Collecting, analysing and organising ideas and information.....1
Communicating ideas and information .....1
Planning and organising activities.....1
Working with others and in teams.....1
Solving problems.....1
Using mathematical ideas and techniques.....1
Using technology.....1

## CONTEXT OF ASSESSMENT AND UNIT ASSESSMENT

Refer to Section 4: What are Competency Standards? regarding Context of Assessment and Unit Assessment.

## RESOURCE IMPLICATIONS AND SUPPORT MATERIALS

Refer to Section 4: What are Competency Standards? regarding Resource Implications and Support Materials.

# PSPETHC301B Uphold the values and principles of public service

## Unit Descriptor

This unit covers the ethical conduct required of those in public service. It includes applying ethical standards and dealing with ethical problems.

In practice, ethical conduct is demonstrated in the context of other generalist or specialist work activities such as building and maintaining networks, delivering client services, using financial resources, procuring goods or services, etc.

This unit replaces and is equivalent to *PSPETHC301A Uphold the values and principles of public service*.

## Key Area

Ethics & Accountability

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| Elements are the essential outcomes of the unit of competency. | Together, performance criteria specify the requirements for competent performance. Text in *italics* is explained in the Range Statement following. |
| 1 Apply ethical standards | 1.1 Interpretation of *ethical values and principles* is reviewed with senior staff to ensure accuracy |
| | 1.2 Personal *work practices* are undertaken in compliance with public sector ethics standards, organisational policy and *guidelines* |
| | 1.3 Verbal and written advice and reports are prepared containing information which is impartial, substantiated, accurate and complete |
| | 1.4 Public *resources* are *used* in accordance with public sector ethics standards, organisational policy and guidelines |
| | 1.5 *Conflicts of interest* are identified, declared, addressed and documented in accordance with policy and procedures |
| | 1.6 Personal behaviour and relationships with the public, suppliers and business contacts are conducted in accordance with ethics standards, policy and guidelines |
| 2 Deal with ethical problems | 2.1 Situations which pose ethical problems are resolved or *referred* in accordance with organisational guidelines |
| | 2.2 Decision-making *processes* used to resolve ethical problems are recorded in accordance with organisational policy and procedures |

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| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| | 2.3 Organisational policies/codes on the prevention and reporting of *unethical conduct* are accessed and applied |

## 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.

*Ethical values and principles may include*

- respect for the law
- integrity
- objectivity
- accountability
- honesty
- openness
- responsibility
- impartiality
- diligence
- trustworthiness
- confidentiality
- respect for persons
- responsible care
- probity
- economy and efficiency
- natural justice/procedural fairness, that is:
  - the right to be heard/put your case
  - the right to be informed of a complaint or case against you
  - the right to know the outcomes/recommendations of an investigation involving you
  - the right to know reasons for decisions affecting you
  - the right to privacy
  - the right to representation
  - the right to silence
  - the decision maker should not be a judge in his/her own cause

## RANGE STATEMENT

*Work practices may include*

- behaviours
- conduct
- relationships with work colleagues, external individuals and organisations
- the manner in which work activities are carried out

*Legislation and guidelines may include*

- legislation for public sector management
- freedom of information
- privacy legislation
- equal employment opportunity and anti-discrimination law
- public sector standards
- Ministerial directions
- State/Territory or Commonwealth codes of ethics
- organisational codes of conduct
- sets of values
- organisational mission and values statements
- organisational policy, procedures/guidelines
- government policy
- professional codes of ethics and conduct
- equity guidelines, workplace diversity guidelines

*Public resources may include*

- time
- stationery
- equipment
- telephones
- Internet
- email

*Use of public resources includes*

- effective use
- efficient use – avoiding/minimising waste
- not for private use

*Conflicts of interest may include*

- potential, perceived and actual conflicts
- bribery

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## RANGE STATEMENT

- improper use of official information
- improper use of resources, including plant and equipment
- acceptance of gifts
- entertainment
- previous and outside employment, including voluntary work
- favours for friends and/or relatives
- memberships of organisations
- political activity
- pecuniary and non-pecuniary conflicts

*Ethical problems which may need to be referred rather than resolved at this level may include*

- conflict between public sector standards and personal values
- conflict between public sector standards and other standards such as professional standards
- conflict between public sector standards and directions of a senior officer or Minister
- tension between two 'rights', for example, the right to privacy versus the right to freedom of information
- conflict regarding issues of personal and organisational intellectual property

*Referrals of ethical problems may be made to*

- line management
- chief executive officer
- public service commissioner
- public sector standards body
- organisational ethics committee
- internal grievance mechanisms, including identified officers
- confidant programs (whistleblower protection programs)
- organisational professional reporting procedures
- unions and professional bodies
- ombudsman
- police

*Processes for resolving ethical problems may include*

- accessing relevant standards and other information
- withdrawing from a situation
- using models of ethical decision making/problem solving
- reflection, discussion, seeking clarification from others

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## RANGE STATEMENT

*Unethical conduct may include*

- fraud, corruption, maladministration and waste
- unauthorised access to and/or use of information, money/finances, vehicles, equipment, resources, time
- improper actions during contractual processes, such as release of intellectual property, infringing copyright, release of tender information, inappropriate disclosure during tender process
- improper public comment on matters relating to the government and/or the organisation
- falsifying records
- giving false testimonials
- dishonesty
- improper use of plant and equipment, credit cards, frequent flyer points, telephones, email and Internet
- extravagant or wasteful practices
- personal favours
- preferential treatment
- putting barriers in place, hindering, blocking action
- compromising behaviour including sexual harassment
- lack of confidentiality
- directing others to act unethically
- oppressive/coercive management decisions
- resorting to illegality to obtain evidence

## 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:

  PSPGOV303B Build and maintain internal networks

  PSPGOV305B Access and use resources and financial systems

  PSPGOV307B Organise workplace information

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## EVIDENCE GUIDE

PSPGOV308B Work effectively with diversity

PSPGOV309A Address client needs

PSPGOV312A Use workplace communication strategies

PSPGOV314A Contribute to conflict management

PSPIM301A Process claims

PSPLAND302A Investigate tenure and land use history

PSPLEGN301B Comply with legislation in the public sector

PSPOHS301A Contribute to workplace safety

PSPPROC302A Undertake basic procurement

- This unit should be co-assessed with other units to supply the context for ethical behaviour

**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 Key Competencies as they relate to this unit (see final table for examples)
- ethical conduct in a range of (3 or more) contexts (or occasions, over time) where contexts may be generalist or specialist work activities such as building and maintaining networks, delivering client services, using financial resources, procuring goods or services etc

**Knowledge requirements**

(The knowledge essential for competency in this unit)

Look for evidence that confirms knowledge and understanding of:

- the nature of ethics and ethical values
- fundamental ethical principles such as justice, respect for persons, procedural fairness, confidentiality, responsible care
- values of public sector office
- natural justice/procedural fairness
- equal employment opportunity, equity and diversity principles
- where to access ethical decision making/problem solving models, organisational codes and procedures
- procedures for declaring conflicts of interest
- protocols for reporting fraud, corruption and maladministration
- occupational health and safety procedures relating to ethical work practices

# EVIDENCE GUIDE

**Skill requirements**

(The skills essential for competency in this unit)

Look for evidence that confirms skills in:

- applying objective and impartial evaluation of conflicting requirements
- using ethical decision making
- preparing written advice and reports requiring accuracy of expression
- accessing legislation and codes of ethics electronically or in hard copy
- tailoring communication to suit different audiences
- responding to diversity, including gender and disability
- applying occupational health and safety procedures relating to ethical work practices

**Resources required to carry out assessment**

These resources include:

- ethics-related legislation and guidelines
- codes of conduct and codes of ethics
- public sector standards, procedures and protocols
- ethical decision making/problem solving models
- manager/mentor/network who role models ethical conduct

**Where and how to assess evidence**

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 working ethically in a public sector environment, including coping with ambiguity, difficulties, irregularities and breakdowns in routine
- ethical conduct in a range of (3 or more) contexts (or occasions, over time) where contexts may be generalist or specialist work activities such as building and maintaining networks, delivering client services, using financial resources, procuring goods or services etc

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

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## EVIDENCE GUIDE

- 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
- portfolios
- questioning
- scenarios
- simulation or role plays
- 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

## KEY COMPETENCIES

There are seven generic Key Competencies that relate to work generally and are considered essential for workplace participation. They underpin effective workplace practice in different organisations and workplaces, with different purposes, functions, and with different competency profiles for their staff.

There are three performance levels for Key Competencies – these do **not** correspond to levels in the Australian Qualifications Framework.

In simple terms:

**Level 1** relates to **undertaking tasks effectively**

**Level 2** relates to **managing tasks**

**Level 3** relates to **evaluating and re-shaping tasks**

The Key Competencies identified below are integral to this unit of competency, and the examples show how they may be applied within the unit.

For example, in demonstrating this competency a person may be:

- *Collecting, analysing and organising information* to evaluate conflicting requirements *(Level 2)*
- *Communicating ideas and information* to different audiences by tailoring communication to suit *(Level 2)*
- *Planning and organising activities* to prepare written advice and reports *(Level 1)*
- *Working with others and in teams* to provide information on the ethical values and standards of the public sector to suppliers, business contacts or the public *(Level 2)*
- *Using mathematical ideas and techniques* to monitor ethical use of public resources *(Level 1)*
- *Solving problems* to address conflicts of interest issues *(Level 2)*

# EVIDENCE GUIDE

- *Using technology* to access legislation, public sector standards and codes of conduct *(Level 1)*

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# PSPFRAU401B Monitor data for indicators of fraud

## Unit Descriptor

This unit covers the collection of data from a wide variety of sources and its input into appropriate data management systems for interrogation to identify indicators of fraud and corruption. It includes collating and interrogating data and monitoring for indicators of fraud and corruption.

*Fraud* in the unit title incorporates both *fraud and corruption*.

In practice, monitoring data for indicators of fraud and corruption may overlap with other generalist or specialist public sector workplace activities such as acting ethically, complying with legislation, exercising regulatory powers, etc.

Related units of competency dealing with investigation, evidence, powers of arrest, etc are located in the *Regulatory* Key Area of the Training Package.

This unit replaces and is equivalent to *PSPFRAU401A Interrogate data*.

## Key Area

Fraud Control

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| Elements are the essential outcomes of the unit of competency. | Together, performance criteria specify the requirements for competent performance. Text in *italics* is explained in the Range Statement following. |
| 1 Collate data | 1.1 Relevant data sources are identified and data is collected that is compatible, useful, relevant, reliable, valid and timely |
| | 1.2 Data is organised in prescribed form in accordance with the identified information needs and uses |
| | 1.3 Data is checked for accuracy, suitability and compliance with legal and privacy responsibilities and security |
| | 1.4 The need to liaise with specialists is determined and acted on in accordance with organisational policy and procedures |
| | 1.5 Ways to improve fraud and corruption control *data* content, interfaces and usefulness are monitored, and recommendations are made to supervisors and other *stakeholders* |

| ELEMENT | | PERFORMANCE CRITERIA | |
|---|---|---|---|
| 2 | Interrogate data | 2.1 | Quantitative and/or qualitative analyses are performed to obtain required outcomes in accordance with the *purpose* of each analysis |
| | | 2.2 | Analysis and description tools and techniques are selected appropriate to the nature of the information and the required outcome |
| | | 2.3 | Priority of data to be interrogated is determined in consultation with appropriate people, and work is organised accordingly |
| | | 2.4 | An understanding of the nature of the program or activity from which the data is obtained, the way in which the information is structured in the system and the likely indications of fraud and corruption activities are reflected in the analysis of material |
| | | 2.5 | Preliminary recommendations are expressed in the detail, format and timeframe required |
| 3 | Monitor for indicators of fraud and corruption | 3.1 | Fraud and corruption or possible fraud and corruption situations are identified, staff and systems alerted and *actions* initiated |
| | | 3.2 | Where indicators arise for which there are no precedents, information is referred to the appropriate people for further analysis |
| | | 3.3 | Trends indicating activities outside control limits are reported for further analysis and investigation |
| | | 3.4 | Checks are made for internal consistency and compliance with established structure, rules and authorities for accessing information |
| | | 3.5 | Variations from standards and *guidelines* are reported in accordance with organisational policy and procedures |

## 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.

*Data may include*

- electronic systems
- paper-based systems
- client data

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## RANGE STATEMENT

- other individuals and organisations

*Stakeholders may include*

- staff and senior management
- clients
- law enforcement agencies
- organisations providing data
- standards-setting organisations

*Purposes of data analysis may include*

- response to ongoing or individual requests for information from specified people to check for particular information
- matching data as part of a random check
- conducting a needs assessment for fraud and corruption prevention and awareness activities
- generating and initiating fraud and corruption control activities

*Actions resulting from data interrogation may include*

- investigation or inquiry
- legislative change
- administrative change
- policy change
- improved referral to another organisation for investigation

*Guidelines may include*

- legislation and guidelines prepared by relevant standards-setting organisations

## 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

  PSPGOV406B Gather and analyse information

# EVIDENCE GUIDE

PSPLEGN401A Encourage compliance with legislation in the public sector

PSPREG401C Exercise regulatory powers

PSPREG402C Promote client compliance

PSPREG415A Receive and validate data

**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 Key Competencies as they relate to this unit (see final table for examples)
- monitoring of data for indicators of fraud and corruption in a range of (3 or more) contexts (or occasions, over time)

**Knowledge requirements**

(The knowledge essential for competency in this unit)

Look for evidence that confirms knowledge and understanding of:

- legislation and procedures relating to public interest disclosures, protected disclosures or whistleblowing
- privacy, confidentiality or other specific legislation and guidelines relating to fraud and corruption control
- freedom of information legislation
- guidelines issued by standards-setting organisations
- organisation's programs and client base
- legislation and corresponding links with the organisation's programs
- how data is managed within the organisation
- legislation, policies and procedures relating to fraud and corruption control including occupational health and safety and environment

**Skill requirements**

(The skills essential for competency in this unit)

Look for evidence that confirms skills in:

- undertaking research and analysis
- interrogating data to detect patterns indicating fraud and corruption
- applying effective management of data, abiding by all agency guidelines, formats and systems
- correctly recording data into information systems
- using data matching to identify factors required for an

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## EVIDENCE GUIDE

investigation

- collating and organising of data to assist in an investigation
- using a range of communication styles to suit different audiences and purposes
- responding to diversity, including gender and disability
- using computer software for data analysis and matching
- applying occupational health and safety and environmental procedures in the context of fraud and corruption control data monitoring

**Resources required to carry out assessment**

These resources include:

- fraud and corruption control guidelines
- fraud investigation standards
- public sector values and codes of conduct
- organisational procedures and manuals
- legislation, procedures and protocols relating to fraud and corruption control
- legislation and procedures relating to public interest disclosures, protected disclosures or whistleblowing
- case studies and workplace scenarios to capture the range of fraud/corruption situations likely to be encountered

# EVIDENCE GUIDE

**Where and how to assess evidence**

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 monitoring data for indicators of fraud and corruption, including coping with difficulties, irregularities and breakdowns in routine
- monitoring of data for indicators of fraud and corruption 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
- observation
- portfolios
- projects
- questioning
- scenarios
- simulation or role plays
- 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/or apply the competency in different situations or environments

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# EVIDENCE GUIDE

# KEY COMPETENCIES

There are seven generic Key Competencies that relate to work generally and are considered essential for workplace participation. They underpin effective workplace practice in different organisations and workplaces, with different purposes, functions, and with different competency profiles for their staff.

There are three performance levels for Key Competencies – these do **not** correspond to levels in the Australian Qualifications Framework.

In simple terms:

**Level 1** relates to **undertaking tasks effectively**

**Level 2** relates to **managing tasks**

**Level 3** relates to **evaluating and re-shaping tasks**

The Key Competencies identified below are integral to this unit of competency, and the examples show how they may be applied within the unit.

For example, in demonstrating this competency a person may be:

- *Collecting, analysing and organising information* to collate and monitor data *(Level 2)*
- *Communicating ideas and information* to report variations from standards and guidelines *(Level 2)*
- *Planning and organising activities* to interrogate data *(Level 1)*
- *Working with others and in teams* to refer information to others for further analysis *(Level 1)*
- *Using mathematical ideas and techniques* for data analysis and matching *(Level 2)*
- *Solving problems* to improve data content, interfaces and usefulness *(Level 2)*
- *Using technology* to monitor for indicators of fraud and corruption *(Level 2)*

# PSPFRAU402A Receive and validate information

| | |
|---|---|
| Unit Descriptor | This unit covers activities related to handling information received from a variety of sources which may then be referred for further action or acted upon. |
| Key Area | Fraud Prevention, Detection and Investigation |

| Element | Performance Criteria |
|---|---|
| 1 Enter selected information into case management system | 1 Accurate recording is carried out in line with organisational procedures confirming relevant details of source<br>2 Relevant bodies/organisations are informed as required to alert them to possible fraud and how information received may impact on their clients<br>3 Initial selection is completed using preliminary cull to eliminate doubtful data<br>4 Useful and useable information is selected and organised in a form that is accessible to investigators |
| 2 Verify authenticity of information | 1 Records are checked for supporting evidence<br>2 Inaccuracies and gaps are identified<br>3 Validation or corroboration carried out with client and organisational information as well as information from outside organisations and other sources |
| 3 Identify offence(s),potential witness(es) and suspect(s) | 1 Alleged offence(es) are identified from available information<br>2 Elements of offence(s) are identified and described using correct procedures<br>3 Suspect(s) identified from available information<br>4 Potential witness(es) identified from available information<br>5 Complainants are handled in accordance with organisational guidelines which may indicate referral to more senior management<br>6 Appropriate organisation staff are alerted to the possibility of threats to operational security, publicity and/or further fraud activities |

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| Element | Performance Criteria |
|---|---|
| 4 Recommend course of action | 1 Policy areas that may be affected by information received are identified and informed at the appropriate time so that usefulness of information will not be subsequently restricted |
| | 2 Timely consultation with prosecution and police agencies and management is undertaken to prevent gaps occurring in evidence collection and to gain advice on best methodology to adopt |
| | 3 Decision is documented showing reasons for proceeding/not proceeding or taking other action, after discussion with management |
| | 4 Other relevant organisations are informed if appropriate |

## Range of Variables

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| **Information may include** | • written, verbal or electronic<br>• voluminous quantities that should be checked for age, compatibility and validity<br>• information about clients and staff |
| **Information sources may include** | • clients and staff |
| **Indicators may include** | • coincidence as an initial pointer to an area for further investigation<br>• emerging patterns of incidents or behaviours or 'trends' |
| **Cross referencing may include** | • on-line, through file and document search or in person<br>• sources that are found in several locations |

## Evidence Guide

This Evidence Guide must be read in conjunction with the Assessment Guidelines for the National Public Services Training Package.

| | |
|---|---|
| **Critical aspects of evidence** | • integrated demonstration of all elements and their related performance criteria; and<br>• collection of information targeted towards needs of investigation including the identification of witnesses, suspects and offences<br>• collection and management of information according to judicial, legislative and organisational guidelines<br>• recognition of sources of information to ensure that further information is received when required<br>• information being correctly recorded according to organisational guidelines and formats<br>• recommendations being made for further investigation arising from information received |
| **Interdependent assessment of units** | **Pre-requisite units:** Nil<br>**Co-requisite units:** Nil |

| | |
|---|---|
| | **Co-assessed units:** PSPFRAU401A Interrogate Data |
| **Underpinning knowledge** | • relevant complaints handling, freedom of information, privacy and criminal offences legislation<br>• prosecution policy of the jurisdiction<br>• protected disclosure legislation<br>• investigation priorities<br>• other particular legislation impacting on organisation |
| **Underpinning skills** | • analytical<br>• research<br>• project management<br>• negotiation |
| **Resource implications** | this unit of competency should be assessed in the workplace, but in the event that there is no access to the workplace a simulated workplace can be used but such simulation must replicate workplace conditions in terms of: performing the task; managing a number of different tasks; coping with irregularities and breakdowns in routine; dealing with the responsibilities and expectations of the workplace, including working with others; and transferring competency to new situations |
| **Consistency of performance** | knowledge and performance to be assessed over time to confirm consistency in approach |
| **Context/s of assessment** | • this unit should be assessed on-the-job where possible or in a simulated work environment<br><br>Evidence for assessment may be gathered by:<br>• observation of how effectively information is handled with reference to agency needs and guidelines<br>• questioning to ascertain whether suitable criteria for establishing validity and reliability are understood and applied in selecting/not selecting information<br>• observation as to whether recognised methods are used to establish authenticity of information<br>• discussion with supervisors as to whether information is selected which will assist investigators to identify occurrence of fraud<br>• discussion regarding methods to identify and locate appropriate people to enable the investigation to progress towards desired conclusion<br>• observation of how effectively recording is done throughout this stage of the investigation |

**KEY COMPETENCY LEVELS** **NB These levels do not relate to the Australian Qualifications Framework**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| Level 2 | Level 2 | Level 1 | Level 2 | Level 1 | Level 1 | Level 1 |

**1 = use routine approaches; 2 = select from routine approaches; 3 = establish new approaches**

**Please refer to the Assessment Guidelines for advice on how to use the Key Competencies**

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# PSPFRAU403A Gather, manage and present evidence

| | |
|---|---|
| Unit Descriptor | This unit covers all activities involved with evidence collection, storage and use, and presentation of evidence in an appropriate forum. |
| Key Area | Fraud Prevention, Detection and Investigation |

| Element | Performance Criteria |
|---|---|
| 1 Plan and activate evidence collection | 1 Evidence matrix is researched and developed to establish type and standard of evidence and resources required when the size of investigation and/or type of offence(s) require this<br>2 Costs of gathering evidence is estimated based on knowledge of appropriate methods<br>3 Approval for resource allocation is obtained using accurate data about costs involved<br>4 Plan of action is agreed with team members and communication and review processes established<br>5 Evidence recording process is put in place complying with organisational guidelines and details communicated to team members |
| 2 Collect and store evidence | 1 Evidence collected is admissible<br>2 Search warrant(s) are obtained if required involving other organisations where necessary<br>3 Evidence is identified, collected, recorded and preserved according to exhibit management principles for later use in proceedings<br>4 All evidence is managed in accordance with the principles of continuity of possession and other legislative requirements<br>5 Corroboratory evidence is collected, documented and preserved<br>6 Expert skills and knowledge are brought in when necessary to further assist staff in areas where they cannot or are not authorised to act<br>7 Constant review is implemented during evidence collection |

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| Element | Performance Criteria |
|---|---|
| | 8 Possible witnesses are identified, located and contacted to request that they provide a witness statement<br><br>9 Suspects are identified, located and, at the appropriate time contacted to inform them of the nature of the investigation and request an interview<br><br>10 Where relevant, assets and entitlements of suspects are identified for recovery purposes<br><br>11 Witness(es) are advised of their rights and their statement(s) are taken in accordance with evidentiary requirements<br><br>12 Suspect(s) are advised of their rights and their statement(s) taken in accordance with evidentiary requirements<br><br>13 Particulars of witness(es) are documented according to correct evidentiary procedures<br><br>14 Statements comply with the rules of evidence and required recording practices with regard for individual rights |
| 3 Collate and corroborate evidence | 1 Evidence is cross checked to confirm origin, authenticity and reliability, anticipating challenge that may occur<br><br>2 Evidence is analysed to assess whether fraud is proved<br><br>3 Acts committed by the offender are matched with similar proofs of offence<br><br>4 Gaps and inadequacies are identified and assessed to allow further collection of evidence (including exculpatory evidence) if possible |
| 4 Summarise and report | 1 Verbal and written summaries are made to inform team members and management and to prepare for final summation<br><br>2 Outcomes of investigation are entered into data management systems according to organisational guidelines |

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| Element | Performance Criteria |
|---|---|
| 5 Present evidence and conclude case | 1 Where required, brief of evidence is planned and prepared according to standards required by prosecuting organisation |
| | 2 Evidence is presented in written and oral form to achieve a successful outcome according to requirements of court or other body where appropriate |
| | 3 Quality and standard of evidence and presentation enhance reputation and image of the organisation with public, legal profession and colleagues |
| | 4 Feedback from counsel and police and comments by deciding authority are noted and incorporated |
| | 5 At the conclusion of the case evidence is dealt with according to organisational procedures and investigation file is updated/closed |
| | 6 Where appropriate, action is taken to recover all possible moneys |

## Range of Variables

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| **Evidence may include** | • real, oral, computer data or documentary<br>• new evidence which results in reopening of an investigation |
| **Evidence collection may include** | • voluntary submission<br>• acquisition through legislative powers<br>• following new lines of inquiry suggested during the process of gathering evidence |
| **Evidence management may include** | • systematic recording (such as dating and numbering)<br>• using written or electronic database systems<br>• referral to prosecution organisations at any stage<br>• constant reviews during an investigation |
| **Evidence presentation may include** | • in a court, in a civil action matter, disciplinary process or hearing, administrative review, parliamentary hearing or royal commission |
| **Legislation / standards may include** | • relevant Commonwealth / State / Territory legislation and guidelines, ethical and conduct standards and judicial standards which must be followed in evidence collection to ensure the continuity of possession and admissibility of the evidence |
| **Specialists may include** | • police, other law enforcement agencies or private provider for input such as search warrant, surveillance or scientific analysis |

| | |
|---|---|
| **Reports may include** | • editing and security coding for a particular audience<br>• opinions which must be clearly indicated |
| **Recovery may include** | • criminal or civil action |

## Evidence Guide

This Evidence Guide must be read in conjunction with the Assessment Guidelines for the National Public Services Training Package.

| | |
|---|---|
| **Critical aspects of evidence** | • integrated demonstration of all elements and their related performance criteria; and<br>• efficient planning of the process of management of evidence<br>• careful collection and storage of materials<br>• cross referencing of evidence collected<br>• identification of evidentiary gaps<br>• correct use of evidence in court or other proceedings<br>• handling of all evidence according to legislative and organisational requirements |
| **Interdependent assessment of units** | **Pre-requisite units:** Nil<br>**Co-requisite units:** Nil<br>**Co-assessed units:** PSPFRAU402A Receive and Validate Information; PSPFRAU405A Evaluate Progress of Investigation |
| **Underpinning knowledge** | • rules of evidence relevant to the jurisdiction<br>• evidence legislation relevant to the jurisdiction<br>• relevant legislation which contain the offence/s under investigation<br>• document management systems<br>• exhibit management principles<br>• court processes and requirements<br>• relevant guidelines for preparation of a brief of evidence |
| **Underpinning skills** | • liaison and negotiation<br>• problem solving<br>• organisational<br>• interpersonal<br>• communication<br>• questioning<br>• presentation |
| **Resource implications** | this unit of competency should be assessed in the workplace, but in the event that there is no access to the workplace a simulated workplace can be used but such simulation must replicate workplace conditions in terms of: performing the task; managing a number of different tasks; coping with irregularities and breakdowns in routine; dealing with the responsibilities and expectations of the workplace, including working with others; and transferring competency to new situations |
| **Consistency of performance** | knowledge and performance to be assessed over time to confirm consistency in approach |

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| | |
|---|---|
| **Context/s of assessment** | • this unit should be assessed on-the-job where possible or in a simulated work environment<br><br>Evidence for assessment may be gathered through:<br>• observation of the evidence collection process at every stage to ascertain<br>• whether legislative, judicial and agency requirements regarding correct evidentiary management are understood and applied<br>• review of documentation and reports produced<br>• questioning of investigator about methods used to identify, collect, record and preserve evidence<br>• feedback from Director of Public Prosecutions<br>• observation of interaction with court processes and performance in real or simulated court situation |

**KEY COMPETENCY LEVELS** **NB These levels do not relate to the Australian Qualifications Framework**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| Level 2 | Level 3 | Level 2 | Level 3 | Level 1 | Level 2 | Level 1 |

**1 = use routine approaches; 2 = select from routine approaches; 3 = establish new approaches**

**Please refer to the Assessment Guidelines for advice on how to use the Key Competencies**

# PSPFRAU404A Conduct formal interviews and take witness statements

| | |
|---|---|
| Unit Descriptor | This unit covers taking statements and the conduct of interviews with a suspect. |
| Key Area | Fraud Prevention, Detection and Investigation |

| Element | Performance Criteria |
|---|---|
| 1 Plan the interview | 1 Information from all sources is gathered and prepared for use in interview if required<br>2 List of key questions is prepared in sequential order highlighting main points<br>3 All materials are organised in correct order for presentation or reference<br>4 Recording equipment is in working order and ready for use<br>5 Exhibits for display are ready and correctly organised<br>6 Arrangements for interviews are made and interviewee informed of arrangements |
| 2 Conduct the interview | 1 Every aspect of the interview is conducted according to legal and organisational requirements<br>2 Interviewer introduces self and produces authority/identification<br>3 Interviewee is informed of rights, the purpose of the interview, how it will be recorded and cautioned at the appropriate time if required<br>4 Interviewee's understanding of their rights is verified<br>5 All rights of interviewee are observed<br>6 Where necessary, and appropriate to the investigation, an assurance of confidentiality may be given to the subject of the interview<br>7 If a suspect, interviewee informed of nature of alleged offence and unambiguous allegations made<br>8 Interview conducted in planned manner, with sequence evident to others who may use outcomes |

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| Element | Performance Criteria |
|---|---|
| | 9 All evidence of admission and confessions from a suspect, or information from witnesses is admissible and recorded according to rules of evidence and organisational guidelines<br><br>10 Appropriate technology is used to record interview<br><br>11 Interviews are conducted so that outcomes are admissible in evidence<br><br>12 A copy of the audio or video tape, or a copy of a written or typed record of interview or statement is given to the interviewee at the conclusion of the interview, according to legislative and organisational guidelines<br><br>13 All relevant information (including exculpatory evidence) has been obtained |
| 3 Complete follow up actions and review | 1 Post interview follow up is completed and records updated<br><br>2 Relevant information gathered is fed back into organisation in line with judicial and legislative provisions to support future investigations or to add to records<br><br>3 Results are reported for development of future investigations and team members informed |

## Range of Variables

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| **Statements may include** | • witness statements, affidavits, or statements for internal/departmental discipline procedures |
| **Interviewees may include** | • witnesses or suspects |
| **Recording of interviews may include** | • tape recording<br>• videotaping |
| **Legal requirements may include** | • special arrangements for minors<br>• ensuring suspects or witnesses understand their rights<br>• interviewee access to legal advice<br>• union representation at interview<br>• presence of advocates for some groups, for example the intellectually disabled<br>• special arrangements for the interview of Aboriginal and Torres Strait Islander peoples and people who do not speak English<br>• implementation of organisation agreements<br>• arrangements for written statement when appropriate<br>• interviewees legal rights which must be accorded to them |

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| | |
|---|---|
| | throughout the interview |

## Evidence Guide

This Evidence Guide must be read in conjunction with the Assessment Guidelines for the National Public Services Training Package.

| | |
|---|---|
| **Critical aspects of evidence** | • integrated demonstration of all elements and their related performance criteria; and<br>• interviews being conducted strictly according to legislative and judicial requirements as well as according to organisational guidelines and formats<br>• undertaking the role of interviewer and corroborator in a Record of Interview and demonstration of the different techniques applied in interviewing suspects as opposed to interviewing witnesses<br>• interviewees treated correctly and all required processes are followed<br>• interviews are well organised and evidence is collected systematically |
| **Interdependent assessment of units** | **Pre-requisite units:** Nil<br>**Co-requisite units:** Nil<br>**Co-assessed units:** PSPFRAU403A Gather, Manage and Present Evidence; and PSPFRAU405A Evaluate Progress of the Investigation |
| **Underpinning knowledge** | • agency guidelines<br>• rules of evidence relevant to the jurisdiction<br>• evidence legislation relevant to the jurisdiction<br>• relevant complaints handling, freedom of information, privacy and criminal offences legislation<br>• relevant legislation which contain the offence under investigation<br>• Duty of Care requirements |
| **Underpinning skills** | • questioning<br>• interpersonal<br>• negotiation<br>• statement and interview recording |
| **Resource implications** | this unit of competency should be assessed in the workplace, but in the event that there is no access to the workplace a simulated workplace can be used but such simulation must replicate workplace conditions in terms of: performing the task; managing a number of different tasks; coping with irregularities and breakdowns in routine; dealing with the responsibilities and expectations of the workplace, including working with others; and transferring competency to new situations |
| **Consistency of performance** | knowledge and performance to be assessed over time to confirm consistency in approach |

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| | |
|---|---|
| **Context/s of assessment** | this competency should be assessed on-the-job where possible or in a simulated work environment<br><br>Evidence for assessment may be gathered from:<br>• observation of investigator conducting interviews in real or simulated situations, to check for legally compliant and appropriate methods<br>• observation of whether interview achieves stated objectives<br>• observation of communication techniques, in particular the use of effective questioning<br>• discussion with supervisors about the investigator's handling of witnesses and suspects<br>• observation of compliance with agency guidelines generally and in particular regarding observation of individual rights, awareness of potential sensitivity of poorly handled interviews<br>• feedback from Director of Public Prosecutions<br>• checking of record of interview and recording requirements for completeness and compliance with legislative and agency requirements |

**KEY COMPETENCY LEVELS** **NB These levels do not relate to the Australian Qualifications Framework**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| Level 2 | Level 3 | Level 2 | Level 3 | Level 1 | Level 2 | Level 1 |

**1 = use routine approaches; 2 = select from routine approaches; 3 = establish new approaches**

**Please refer to the Assessment Guidelines for advice on how to use the Key Competencies**

# PSPFRAU405A Evaluate progress of investigation

| | |
|---|---|
| Unit Descriptor | This unit covers ongoing review of activities throughout an investigation to ensure the effective outcome of an investigation. |
| Key Area | Fraud Prevention, Detection and Investigation |

| Element | Performance Criteria |
|---|---|
| 1 Summarise and report on progress of investigation | 1 Progress and problems are reviewed, reports prepared and disseminated<br>2 Briefings are compiled and presented for team and management information and action<br>3 Records and systems are updated regularly |
| 2 Identify and analyse problems | 1 Problems are noted and suggestions made for improvement<br>2 Modifications to process of investigation are suggested and solutions implemented where practicable |
| 3 Recommend further action | 1 Suggestions are made regarding further avenues of inquiry suggested during process of investigation<br>2 Areas of potential fraud are notified to management and team with suggestions for early prevention measures<br>3 Follow up tasks are performed, particularly referrals to prosecution organisations ensuring that documentation is completed<br>4 Where relevant, liquidity analysis is performed and debt recovery procedures are recommended within organisational guidelines<br>5 If investigation is terminated, recommendations for referral to another organisation are made if appropriate and documented for the organisation's information in future similar cases<br>6 Recommendations are implemented where appropriate |

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| Element | Performance Criteria |
|---|---|
| 4 Evaluate conduct of investigation against standards of ethical behaviour | 1 Organisational Code of Conduct is complied with<br>2 Strategies for achieving high standards of ethical behaviour are developed and implemented<br>3 Reliability, integrity and respect for the rights of team members and clients are shown at all times<br>4 Confidentiality of information gathered in the investigation process is maintained where appropriate<br>5 Implications of unethical behaviour are outlined and alternative behaviours encouraged when necessary<br>6 Procedures of organisation for interaction with disadvantaged groups are applied<br>7 Statutory requirements underlying non discriminatory organisational procedures and individual actions are implemented and championed<br>8 Ethical standards are shown in every aspect of investigation |
| 5 Summarise and recommend | 1 Verbal and written reports are made on conduct of investigation with suggestions for future improvements and reasons for any successful outcomes<br>2 Organisational systems are updated regularly<br>3 External organisations and bodies are informed of outcomes if applicable and documented<br>4 Patterns of incidents and irregularities are noted<br>5 Suggestions are made for incorporation into planning and decision making in the organisation |

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## Range of Variables

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| **Specialist input in an investigation may Include** | • document examination<br>• fingerprinting<br>• photography<br>• surveillance<br>• forensic examination<br>• legal advice - director of public prosecutions and government solicitor<br>• advice on evidentiary matters<br>• recovery issues<br>• execution of search warrants<br>• audit matters<br>• systems design; data analysis; areas of other technical expertise |
| **Briefings may include** | • written, oral, formal or informal |
| **Requirements for success may include** | • effective administrative processes for all aspects of the investigation<br>• appropriate resource allocation<br>• correct evidence collection and management |
| **Recommendations may include** | • amending internal and external policy and procedures<br>• re-evaluating the resourcing of the investigation<br>• referring the matter to other agencies |

## Evidence Guide

This Evidence Guide must be read in conjunction with the Assessment Guidelines for the National Public Services Training Package.

| | |
|---|---|
| **Critical aspects of evidence** | • integrated demonstration of all elements and their related performance criteria; and<br>• the investigation being conducted in accordance with all legislative and judicial requirements and agency guidelines<br>• speedy identification of any problems with process or methods and recommendations made for improvements to agency procedures<br>• high ethical standards in place and underpinning all investigative activity<br>• consideration and follow up of all avenues of inquiry<br>• initiation of action to recover all moneys lost where appropriate<br>• other offenders/offences being addressed in the investigation or referred appropriately<br>• completion and maintenance of records<br>• identification of patterns that indicate fraud |
| **Interdependent assessment of units** | **Pre-requisite units:** Nil<br>**Co-requisite units:** Nil<br>**Co-assessed units:** PSPFRAU403A Gather, Manage and Present Evidence, and PSPFRAU404A Conduct Formal Interviews and Take Witness Statements |

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| | |
|---|---|
| **Underpinning knowledge** | • administrative legislation relating to agency<br>• legislation relating to investigation<br>• agency guidelines for reporting and information management<br>• procedures for investigation<br>• ethical standards<br>• legislation relating to the offences under investigation<br>• Anti Discrimination legislation and procedures<br>• Equal Opportunity legislation and procedures. |
| **Underpinning skills** | • analytical<br>• report writing<br>• project management<br>• interpersonal. |
| **Resource implications** | this unit of competency should be assessed in the workplace, but in the event that there is no access to the workplace a simulated workplace can be used but such simulation must replicate workplace conditions in terms of: performing the task; managing a number of different tasks; coping with irregularities and breakdowns in routine; dealing with the responsibilities and expectations of the workplace, including working with others; and transferring competency to new situations |
| **Consistency of performance** | knowledge and performance to be assessed over time to confirm consistency in approach |
| **Context/s of assessment** | this competency should be assessed on-the-job where possible or in a simulated work environment<br><br>Evidence for assessment may be gathered by:<br>• questioning to ascertain whether investigation completed on time and within negotiated budget<br>• questioning to ascertain that where appropriate, all possible actions have been taken to recover lost moneys<br>• discussion with supervisors as to whether suggestions were made for investigation of further offenders/offences<br>• review of running sheets, reports prepared and briefings completed internally and externally<br>• questioning to establish understanding of importance of careful file management and observation of recording and filing systems to ascertain whether completed<br>• questioning of investigator regarding understanding of the theoretical and practical knowledge of ethical standards. Application of these concepts in the investigation should include accommodation of disadvantage and disability |

**KEY COMPETENCY LEVELS** **NB These levels do not relate to the Australian Qualifications Framework**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| Level 2 | Level 2 | Level 1 | Level 1 | Level 1 | Level 2 | Level 1 |

**1 = use routine approaches; 2 = select from routine approaches; 3 = establish new approaches**

**Please refer to the Assessment Guidelines for advice on how to use the Key Competencies**

# PSPLEGN301B Comply with legislation in the public sector

## Unit Descriptor

This unit covers compliance with legislation and related public sector policy guidelines and procedures. It includes identifying and complying with legislative requirements and reporting incidents of non-compliance.

In practice, complying with legislation is demonstrated in the context of other generalist or specialist work activities such as delivering client services, using financial resources, procuring goods or services, etc.

This unit replaces and is equivalent to *PSPLEGN301A Comply with legislation in the public sector*.

## Key Area

Legislation & Compliance

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| Elements are the essential outcomes of the unit of competency. | Together, performance criteria specify the requirements for competent performance. Text in *italics* is explained in the Range Statement following. |
| 1 Identify legislative requirements | 1.1 Information is accessed that covers the range of *legislation and guidelines* relating to the workplace and is current and comprehensive |
| | 1.2 Key requirements of relevant pieces of legislation are identified and confirmed with senior staff |
| | 1.3 Requirements of legislation are clarified to confirm understanding and ensure consistency of interpretation and application |
| | 1.4 Clarification is obtained of the way various pieces of legislation are integrated to provide a legislative framework for public sector work |
| | 1.5 Advice is obtained when apparently *conflicting legislative directives* are found |
| 2 Comply with legislative requirements | 2.1 Work practices are carried out in accordance with the requirements of legislation relating to the work environment |
| | 2.2 Own conduct is reviewed and feedback from others is used to confirm continuing compliance with legislative requirements |

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| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| 3 Report incidents of non-compliance | 3.1 Possible breaches of legislation are raised promptly with an authorised person/body in accordance with organisational procedures |
| | 3.2 *Inadequacies in workplace procedures* which may contribute to non-compliance are raised in accordance with organisational procedures |

## 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.

*Legislation and guidelines may relate to*

- public sector standards:
  - codes of conduct/ethics
  - guarantee of service
  - legislated standards
  - State/Territory/Commonwealth/organisational standards
  - technical/industrial standards
  - professional standards
  - industry competency standards
  - anti-corruption legislation
  - whistleblowers' protection
- public sector employment:
  - employee relations
  - chief executive officer's instructions
  - Commissioner's instructions
  - public sector notices
- workplace environment:
  - equal employment opportunity
  - affirmative action
  - workplace diversity
  - anti-discrimination
  - workplace harassment
  - occupational health and safety
  - duty of care

## RANGE STATEMENT

- security, storage, handling and classification of documents
- financial management and accountability:
  - Treasurer's instructions
  - contractual obligations
- transparency:
  - freedom of information
  - professional reporting
  - accountability
  - fair trading
- business and community:
  - privacy
  - trade practices
  - competition
  - road transport legislation
- information and records management standards and legislation
- the organisation's enabling legislation, regulations
- aspects of common law, criminal law, contract law, employment law and administrative law, including judges' rules
- international legislation/codes of behaviour

*Conflicting legislative directives may include*

- apparent contradiction between statutes
- apparent conflict between statutes and policy requirements

*Inadequacies in workplace procedures may include*

- insufficient financial/other controls
- insecure Internet/fax access
- unauditable records processes
- ambiguous guidelines
- no guidelines
- unnecessary complexity
- use of non-current legislation

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# 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:

  PSPETHC301B Uphold the values and principles of public service

  PSPGOV305B Access and use resources and financial systems

  PSPGOV307B Organise workplace information

  PSPIM301A Process claims

  PSPPROC302A Undertake basic procurement

  PSPSEC301A Secure government assets

**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 Key Competencies as they relate to this unit (see final table for examples)
- compliance with legislation in a range of (3 or more) contexts (or occasions, over time)

**Knowledge requirements**

(The knowledge essential for competency in this unit)

Look for evidence that confirms knowledge and understanding of:

- the range of legislation relating to the public sector (including occupational health and safety and environment) and the key requirements of each
- public sector codes of ethics/conduct
- equal employment opportunity, equity and diversity principles
- organisational processes/procedures for responding to legislative issues

**Skill requirements**

(The skills essential for competency in this unit)

Look for evidence that confirms skills in:

- undertaking research and evaluation
- undertaking self-assessment
- reading complex and formal documents such as legislation and related materials to apply them to work practices and to

## EVIDENCE GUIDE

identify inappropriate conduct

- communicating with others involving exchanges of complex oral and written information
- using technology to access legislative requirements
- responding to diversity, including gender and disability
- applying environmental and occupational health and safety procedures

**Resources required to carry out assessment**

These resources include:

- public sector legislation, regulations and guidelines
- procedures and protocols
- scenarios and case studies to capture the range of situations likely to be encountered when complying with public sector legislation

**Where and how to assess evidence**

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 complying with legislation in the public sector, including coping with difficulties, irregularities and apparently conflicting legislative requirements
- compliance with legislation 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
- portfolios
- questioning

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# EVIDENCE GUIDE

- scenarios
- simulation or role plays
- 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

# KEY COMPETENCIES

There are seven generic Key Competencies that relate to work generally and are considered essential for workplace participation. They underpin effective workplace practice in different organisations and workplaces, with different purposes, functions, and with different competency profiles for their staff.

There are three performance levels for Key Competencies – these do **not** correspond to levels in the Australian Qualifications Framework.

In simple terms:

**Level 1** relates to **undertaking tasks effectively**

**Level 2** relates to **managing tasks**

**Level 3** relates to **evaluating and re-shaping tasks**

The Key Competencies identified below are integral to this unit of competency, and the examples show how they may be applied within the unit.

For example, in demonstrating this competency a person may be:

- *Collecting, analysing and organising information* to identify and apply legislative requirements *(Level 1)*
- *Communicating ideas and information* to raise inadequacies in workplace procedures which may contribute to non-compliance *(Level 1)*
- *Planning and organising activities* to access current and relevant information *(Level 1)*
- *Working with others and in teams* to gather feedback and use it to confirm continuing compliance with legislative requirements *(Level 1)*
- *Using mathematical ideas and techniques* to navigate legislation and find particular clauses and regulations *(Level 1)*
- *Solving problems* when dealing with apparently conflicting legislative directions *(Level 2)*
- *Using technology* to access legislative information electronically *(Level 1)*

# PSPPOLD601A Develop public policy

| | |
|---|---|
| Unit Descriptor | This unit covers the development of policy to enable the implementation of policy of the government. |
| Key Area | Policy Development |

| Element | Performance Criteria |
|---|---|
| 1 Identify, select and define public policy issues | 1 Events, issues or government policies likely to require changes to public policy are accurately identified<br>2 The implications and impact of events that might require policy development are identified<br>3 Where possible, areas for policy development are prioritised<br>4 Policy requirements are defined in terms of context, issues to be addressed, expected outcomes, possible complications, precedents and key stakeholders |
| 2 Gather and analyse information for public policy development | 1 Information required to support the policy development process is identified<br>2 Information required to support the policy development process is gathered, analysed and interpreted<br>3 An analytical framework for the development of an appropriate public policy is determined |
| 3 Formulate and communicate public policy options | 1 A range of policy options is developed for the government, including mechanisms for implementation, monitoring and evaluation<br>2 The range of policy options is communicated in a timely and understandable way to those responsible for selecting the policy direction<br>3 Recommendations are made for policy options based on likely effectiveness, implementation time frame and costs (including infrastructure), interaction with other policies (existing or being developed) and consistency with broader government policy<br>4 Where appropriate, specific policy options are promoted to government |

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| Element | Performance Criteria |
|---|---|
| 4 Select best public policy option and communicate government policy decisions | 1 If responsible for selection, the best policy option is selected based on information provided<br>2 All stakeholders, particularly those who will be responsible for implementing the new or revised policy are appropriately informed of the nature of the policy change, the outcomes expected by stakeholders, issues, expected costs, timelines and contextual factors (including any impact on other related policies)<br>3 Where necessary the selected policy option is marketed to stakeholders |
| 5 Evaluate public policy(s) | 1 Information relating to the actual outcomes of public policy is gathered during and following policy implementation and analysed and reported<br>2 Recommendations for the improvement of public policy are prepared<br>3 Potential or impending government policy changes are identified and strategies prepared to respond to those changes |

## Range of Variables

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for differences between States and Territories and the Commonwealth, and between organisations and workplaces. It allows for different work requirements, work practices, and knowledge. The Range of Variables also provides a focus for assessment and relates to the unit as a whole.

| | |
|---|---|
| **Public policy may include** | • any aspect for which government considers policy development is required |
| **Analytical frameworks may include** | • logical / rational (including best practice)<br>• incremental or<br>• radical transformation |
| **Information gathering may include** | • consulting with stakeholders<br>• development in other jurisdictions (including overseas)<br>• evaluation of similar policies<br>• benchmarking<br>• pilots or trials of policy<br>• information technology, including Internet |
| **Events may include** | national or international events such as:<br>• change in government<br>• change in government policy<br>• changes in strategic direction<br>• changes in the legislation<br>• changes in the policies of other governments |

## Evidence Guide

This Evidence Guide must be read in conjunction with the Assessment Guidelines for the National Public Services Training Package.

| | |
|---|---|
| **Critical aspects of evidence** | • integrated demonstration of all elements of competency and their performance criteria<br>• public policy is developed that facilitates the objectives of the government and the implementation of government policy; and<br>• the performance of this competency would not normally be linear (element by element) but would involve a number of cycles through each of the elements and may be demonstrated through a number of separate policy development activities |
| **Interdependent assessment of units** | **Pre-requisite units:** Nil<br>**Co-requisite units:** Nil<br>**Co-assessed units:** This unit may be assessed with any of the generalist public service specific units at Diploma level or above particularly in Ethics & Accountability |
| **Underpinning knowledge** | • government processes<br>• EEO, equity and diversity principles |
| **Underpinning skills** | • analytical and research<br>• decision-making<br>• evaluation<br>• communication<br>• ability to work in a team<br>• team leadership<br>• public service ethics and accountability<br>• marketing<br>• cross-cultural competence, including gender and disability |
| **Resource implications** | this unit of competency should be assessed in the workplace, but in the event that there is no access to a workplace a simulated workplace can be used but such simulation must replicate workplace conditions in terms of: performing the task; managing a number of different tasks; coping with irregularities and breakdowns in routine; dealing with the responsibilities and expectations of the workplace, including working with others; and transferring competency to new workplace situations |
| **Consistency of performance** | knowledge and performance to be assessed over time to confirm consistency in performance |
| **Context/s of assessment** | this competency should be assessed on-the-job where possible |

**KEY COMPETENCY LEVELS** — **NB These levels do not relate to the Australian Qualifications Framework**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| Level 3 | Level 3 | Level 3 | Level 3 | Level 2 | Level 3 | Level 2 |

**1 = use routine approaches; 2 = select from routine approaches; 3 = establish new approaches**

**Please refer to the Assessment Guidelines for advice on how to use the Key Competencies**

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# PUAPOL011A Manage own professional performance

| UNIT DESCRIPTOR | This unit covers the competency to effectively manage one's professional performance and perform ethically and with the integrity required to ensure the public's confidence in its police service. |
|---|---|

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Model high standards of personal performance, ethics and integrity** | 1. Own performance standards consistently serve as a role model for other officers and the community as a whole<br>2. Personal and professional integrity is demonstrated to engender confidence and respect<br>3. Commitment to the jurisdiction's laws and the organisation's policy procedures and objectives are constantly demonstrated<br>4. Breaches of organisational Codes of Ethics and/or Practice are recognised and reported in the required manner |
| **2. Review and monitor own performance** | 1. Required personal and professional performance standards are readily identified and acknowledged<br>2. Self-assessment and reflection on practice are regularly used to monitor performance against established standards and accurately identify personal strengths and weaknesses<br>3. Formal and informal performance feedback is regularly sought and acted upon appropriately<br>4. Tasks are carried out to achieve outcomes sought and minimise resource usage |
| **3. Develop and maintain ongoing personal competence** | 1. Currency of relevant professional operational competencies is maintained<br>2. Personal development strategies are identified, planned and implemented and the results evaluated<br>3. New developments and trends in policing are identified and the associated knowledge and skills identified, acquired and applied |
| **4. Manage personal work priorities** | 1. Jobs/tasks are prioritised and undertaken in accordance with unit team goals<br>2. Competing demands are assessed and organised within time constraints to achieve individual, team and organisational priorities<br>3. Operational and self development needs are balanced within the work environment |

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| **5. Assist and support other personnel** | 1. Informative and constructive feedback is provided to other personnel in a positive manner<br>2. Interaction with others promotes a productive and harmonious work environment<br>3. Encouragement, support and advice is provided to personnel as required |
| **6. Maintain physical and emotional health** | 1. Levels of personal physical and emotional health are routinely monitored and appropriately managed<br>2. Support is sought where required to enable identification and implementation of positive alternatives to personal problems |

| **RANGE OF VARIABLES** | |
|---|---|
| **Own performance in the context of this unit may include** | an individual officer's professional ethics<br>integrity and behaviour in relation to that expected and implied within the organisation's stated Codes of Ethics/Practice<br>Statements of Values, law, policy and procedures |
| **The monitoring of 'own performance' against established personal and organisational performance requirements could include processes such as** | formal/informal organisational initiated performance appraisals<br>obtaining feedback from supervisors<br>subordinates<br>colleagues<br>HRD personnel, family and other relevant community members, etc<br>monitoring of supervised staff, colleagues and/or team staff morale,<br>personal reflective behaviour strategies/methodologies<br>others which facilitate the identification of personal strengths/weaknesses/issues to be addressed |
| **Professional performance standards** | are those personal and technical attributes and skills required to undertake the day to day tasks and duties of the incumbent's role to the required workplace performance level |
| **Self assessment and professional reflective behaviour** | This requires officers to regularly review their own performance against established service standards and their own personal professional goals and standards. Feedback sought could be both formal and informal and provided in written and/or verbal formats. |
| **Strategies for improvement may include** | development/implementation of a personal/professional improvement program, either internal or external to the organisation including such things as:<br>development of improved interpersonal/technical skills<br>updating stress management abilities |

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| | adapting work rotation to facilitate changing personal/work priorities<br>formal/informal learning programs<br>utilisation of existing strengths to focus future career development<br>cultural awareness<br>seeking coaching<br>mentoring<br>counseling from appropriate personnel to overcome identified limitations<br>establishment of new career paths within or external to the organisation |
| **The development and maintenance of ongoing personal professional competence may include** | establishing new career paths and goals such as achievement of a particular specialist policing function or rank<br>personality improvement<br>improving security of lifestyle<br>dealing with internal integrity matters<br>through processes such as:<br>personal competence/development models<br>specific work assignments<br>job rotation<br>formal education<br>internal training<br>involvement in community activities<br>which may take place during work time and off duty time |
| **Participation in professional associations may include** | promotion of individual ethics and integrity<br>improved workplace performance resulting from adaptations to new technologies/organisational climates, acquisition of new skills, rapid adoption of new work practices<br>Participation in professional associations and formal/informal professional development activities should be focused on facilitating and encouraging the development and maintenance of high levels of professionalism |
| **Federal legislation may include** | Anti-discrimination<br>EEO<br>Workplace Health and Safety |
| **Managing personal work priorities should cover matters that enable optimisation of the individual's ability to perform effectively and may include** | identifying and dealing with the competing priorities of personal/family/professional responsibilities<br>dealing with competing personal team member/partner priorities or levels of workplace performance and commitment<br>responding/adapting to unforseen/unplanned events<br>developing effective time management strategies<br>optimising own on-the-job learning through establishing and achieving specific learning activities/competencies, |

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| | working with a mentor, etc. |
| **Advice and support may include** | formal and informal socialisation<br>assisting in induction<br>acting as a role model/mentor<br>acting as a field supervisor<br>participation in a formal assessment program |
| **Appropriate action may include** | seeking internal and/or external professional help<br>accessing peer support<br>advising team leader/coordinator of problems<br>undertaking intervention programs to achieve a level of health and fitness commensurate with organisational policies |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in consistent maintenance of professional performance standards. |
| **Interdependent assessment of Unit** | Pre-requisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | relevant organisational Codes of Practice/Ethics Statements of Values<br>professional integrity and behaviour standards<br>professional associations<br>registration bodies (if applicable)<br>acceptable/non-acceptable behaviour and practices<br>ethical and intergrity issues confronting police officers<br>cultural awareness<br>internal procedures for dealing with breaches of professional ethics<br>standards behaviours<br>internal/external professional support and development mechanisms<br>team dynamics and its impacts on personal work performance<br>methods for assessing/reviewing personal performance and planning and implementing effective personal improvement strategies<br>factors pertaining to policing roles that affect/impact upon personal health and stress |
| **Underpinning skills** | Recognising, accurately assessing and acknowledging personal strengths and weaknesses<br>planning and implementing personal improvement plans<br>maintaining consistently high levels of personal presentation (dress code, mannerisms, respectfulness, etc)<br>maintaining consistently high levels of 'professional ethics and integrity' in all work practices and dealings with the community<br>seeking out and responding effectively to feedback |

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| | related to personal performance<br>dealing with and effectively responding to issues/events that challenge professional ethics<br>integrity and behaviour including the reporting of breaches to appropriate authorities<br>maintaining personal health and stress at a level that will enable optimum operational performance |
| **Resource implications** | No special requirements |
| **Consistency in performance** | Performance should be assessed over a time and under a range of various operational conditions |
| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |

**KEY COMPETENCY**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 2 | 2 | 2 | 2 | 1 | 2 | 2 |

# PUAPOL004A Gather, collate and record information

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to gather and record information from a variety of sources including interviews and police database systems. |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Obtain record and analyse information from the community** | 1. Information sought is relevant to police issues and is collected and recorded in accordance with jurisdictional laws, policy and procedures<br>2. Information obtained is analysed, sorted and collated in relation to the purpose for which it is being obtained<br>3. Contents of the recording forms/reports is complete, accurate, concise, legible, understandable and in the correct format |
| **2. Take and compile statements** | 4. Statements relevant to the matter being examined are sought<br>5. Comprehensive statements are taken and contain all details relevant to the matter being examined and in accordance with jurisdictional laws, policy and procedures<br>6. Active and accurate listening is used when taking statements from persons |
| **3. Conduct interviews** | 1. Interviews are planned, managedand conducted to gather maximum amount of information relevant to the matter being examined<br>2. All interviewees are afforded their legal rights and treated fairly and equitably<br>3. Interview techniques employed comply with jurisdictional law and organisational ‘Codes of Ethics/Practice’<br>4. Interviews are conducted and recorded in accordance with jurisdictional laws, policy and procedures |

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| **4. Utilise police and other appropriate information / database systems** | 1. Information entered on database systems is accurate, understandable, complete, verifiable and the required organisational data entry security procedures are adhered to<br>2. Appropriate sources of information are identified and correctly accessed<br>3. Information is legitimately retrieved from appropriate database systems<br>4. 'Freedom of Information' and 'Privacy of Information' laws and/or guidelines are complied with<br>5. Information is accessed/stored in accordance with organisational 'Codes of Ethics/Practice' |
| **5. Use interview and evidence recording equipment** | 1. All recording equipment is operated in accordance with jurisdictional laws, policy and procedures<br>2. Records produced are authorised, stored and assessed in accordance with organisational procedures<br>3. Records produced are clear, audible and presentable as evidence to the courts<br>4. Maintenance and usage logs of equipment are maintained |
| **6. Exchange information with other members within the organisation** | 1. Communication linkages within the organisation / department are identified and utilised to exchange / share information<br>2. Information received is assessed for relevancy to the purpose/issue for which it was sought<br>3. Information is shared with organisationally sanctioned fellow officers<br>4. Irrelevant information is disposed of in accordance with organisational procedures |

## RANGE OF VARIABLES

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| **Information to be sought from the community, including ethnic communities, could be related to and may include** | assisting in the investigation and/or prosecution/coronials, of criminal activity, location of witnesses to and/or suspects of such activity<br>addressing public order/general community safety issues<br>locating missing persons<br>establishing participative community programs<br>progressing/supporting court hearings/matters |

| | |
|---|---|
| **Information to be collected may come from** | public community forums<br>individuals<br>community business leaders<br>local media<br>local government<br>schools<br>community watch groups<br>fellow officers<br>public recreational areas<br>police informants<br>information databases such as ABCI, NEPI<br>crime/accident/incident scenes.<br>Information collected is sorted and collated according to criteria agreed to with Supervisor.<br>Disposal of irrelevant information must conform to organisational policy and procedures |
| **Information recording forms / reports may include** | both hand-written and electronically based pro-forma's and reporting styles |
| **Statements should be comprehensive and may contain** | all relevant information<br>all information required by court<br>all details which may assist the investigation and/or prosecution<br>Statements may be taken at Police Stations or other agreed locations and are to be recorded in a written format that complies with the legal requirements for statements. Where appropriate and legal, statements may also be recorded in forms other than written such as audio-tape or audiovisual (video) tape |
| **Interview and evidence recording equipment may include** | audio tape recorders<br>video cameras and recording equipment<br>cameras authorised for the purpose of recording interviews<br>statements, etc that can be tendered as evidence in courts<br>In some organisations, interview and evidence recording equipment may also include basic fingerprinting equipment<br>Use of the equipment should also cover the authorisation, storage and filing of tapes / film, original and duplicates |
| **Interviews may be conducted at** | Police stations<br>hospitals<br>prisons<br>other agreed lawful sites and are to be recorded in the manner prescribed by organisational policy and procedures |

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## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in the ability to gather relevant information and record it accurately |
| **Interdependent assessment of unit** | Pre-requisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | jurisdictional laws, by-laws and regulations relating to: offences against persons, property, accessing information systems and 'Privacy Legislation'<br>information types and their sources<br>procedures and security measures for accessing, storing, retrieving and sharing data from police databases<br>the rights of individuals in relation to the conduct of interviews and statement compilation |
| **Underpinning skills** | questioning and interviewing<br>operating interviewing recording equipment<br>preparing and compiling statements<br>investigative techniques<br>identifying, labeling and storing of evidence<br>using police information systems |
| **Resource implications** | Access to interview and evidence recording equipment |
| **Consistency in performance** | Evidence of competency will need to be gathered over time and from across a range of simulated / actual workplace situations |
| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |

## KEY COMPETENCY

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 3 | 2 | 2 | 2 | 2 | 3 | 2 |

# PUAPOL005A Use and maintain operational equipment

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to safely use and, where required, maintain administrative and general field based police equipment |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Use office equipment to produce, store and transmit documents** | 1. Requisite documentation is accurately produced, copied, filed, stored, transmitted and disposed of in accordance with organisational guidelines<br>2. User facilitated equipment maintenance/service tasks are carried out according to manufacturer's specifications and organisational policy<br>3. Equipment and document security procedures are complied with<br>4. Breakdowns and faults are reported as per organisational procedures |
| **2. Use police communications equipment** | 1. Police communication equipment is used and maintained in accordance with manufacturer's specifications and organisational guidelines<br>2. Correct radio/telephone procedures and phonetic alphabet are used when communicating<br>3. Appropriate, concise and accurate language is used at all times |
| **3. Utilise computer technology to assist in the completion of tasks** | 1. Computing equipment is used and maintained in accordance with manufacturer's specifications and organisational guidelines<br>2. Security of information and equipment is undertaken in accordance with organisational guidelines<br>3. Computer applications appropriate to the specialised area's tasks are used effectively to achieve work tasks |

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|---|---|
| **4. Use and maintain personal accoutrements** | 1. Accoutrements are at all times used strictly in accordance with jurisdictional laws, policy and guidelines<br>2. Accoutrements are, at all times, used with due regard to personal safety and that of others<br>3. Organisational requirements for weapons skills maintenance are complied with<br>4. Maintenance of accoutrements is undertaken in accordance with required organisational procedures and any losses, damage and/or faults immediately reported to the appropriate officer<br>5. Documentation relating to accoutrements use is accurately prepared and submitted in accordance with organisational requirements |
| **5. Use and operate basic safety equipment** | 1. Safety equipment is operated correctly and maintained in accordance with manufacturer's guidelines and organisational policy and procedures<br>2. Safety equipment is cleaned, returned and stored in accordance with organisational requirements<br>3. Faults, breakdowns and/or deficiencies in safety clothing and equipment are immediately reported to responsible officer |
| **6. Drive and control vehicles in operational settings** | 1. Vehicle is prepared for operational use in accordance with organisation's policies and procedures<br>2. Vehicle is operated in accordance with environmental conditions, operational requirements and vehicle sympathy<br>3. Organisational requirements for emergency and operational driving are complied with |

## RANGE OF VARIABLES

| | |
|---|---|
| **Office equipment should cover the complete range of general administrative equipment normally found in Police Stations may include** | computer systems for document production<br>data storage and retrieval<br>typewriters<br>printers/photocopiers<br>facsimiles<br>filing cabinets |
| **Maintenance/service tasks may include** | use of computer covers and cleaning equipment<br>changing ink/toner cartridges in printers/photocopiers<br>installing paper and fax rolls<br>clearing paper jams |

| | |
|---|---|
| **Security procedures for ensuring security of documentation and equipment may include** | access restrictions to equipment through passwords<br>log-in codes<br>equipment locks<br>restricted areas |
| **Breakdowns and faults to be considered may include** | computer system software/hardware failures<br>physical damage to equipment<br>poor print quality<br>and may require reporting to the organisation's 'IT Helpline' or the officer delegated to handle such matters |
| **Communication equipment may include** | police radios (mobile and 'in car')<br>'in car' computer systems<br>loud hailers/PA systems<br>telephones (fixed and mobile) |
| **Appropriate language** | Appropriate language is that language style sanctioned by an organisation via its operational procedures manual |
| **Interview and evidence-recording equipment may include** | audiotape recorders<br>video cameras and recording equipment<br>SLR cameras authorised by the organisation for the purposes of recording interviews, statements. etc that can be tendered as evidence<br>In some organisations interview and evidence recording equipment may also include basic fingerprinting equipment. Use of the equipment should also cover the authorisation, storage and filing of tapes/film (original and duplicates) |
| **Accoutrements may include** | standard/general issue batons<br>handcuffs<br>service revolver/pistols and other organisationally sanctioned/legal personal protection devices such as Oleo-Capsicum Sprays |
| **Due consideration and regard may include** | quick and accurate analysis of the situational risks present<br>quick and accurate analysis of the risks arising from the application of available/potential response strategies determining and implementing the response that will maximise the safety and security for all concerned |
| **Basic safety equipment in the context of this unit may include** | wet weather and protective clothing including reflective safety vests<br>rubber gloves<br>protective glasses<br>riot shields/helmets and face masks, etc.,<br>light wands, portable flashing lights, reflective and illuminated signs, hand held spotlights |

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| | safety barriers, 'witches hats' and may be used in a variety of incident settings such as: traffic accidents, hazardous material spillages, etc<br>crowd control at sporting events, rallies, demonstrations, blockades, etc.,<br>mobile RBT stations, mobile vehicle inspection/search sites, etc<br>in support of other emergency service agencies such as at natural disasters, fires |
| **Computer applications may include** | specific computer applications<br>word processing<br>data entry and/or retrieval such as NEPI or COPS |
| **Vehicle preparation includes** | checking the vehicle for safe operation<br>ensuring appropriate equipment is available<br>checking emergency equipment is operational |
| **Environmental considerations may include** | terrain<br>weather conditions<br>traffic density<br>lighting<br>road surface |
| **Vehicle sympathy may include** | vehicle movements are within limitations and in line with manufacturer's specification |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in observance of all safety principles for self and others<br>Equipment is used in accordance with organisational policies and procedures and manufacturer's guidelines and complies with OH&S legislation |
| **Interdependent assessment of Unit** | Pre-requisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | jurisdictional laws, policy and procedures covering the use of administrative and operational equipment<br>required document layouts, styles and filing mechanisms<br>organisational computer systems/document security system requirements<br>the organisation's radio communication call signs, codes and phonetic alphabet<br>the legal parameters and organisational policies governing the 'use of force' and 'use of lethal force'<br>the various types of equipment maintenance<br>logs/damage reports required and when they must be completed<br>the safety practices that must be followed when using police equipment |
| **Underpinning skills** | using office equipment to produce, file, send/receive and secure documents, reports, proformas, maintenance/usage logs<br>using all types of commonly available police communications equipment<br>using audio and visual recording to produce evidence that is acceptable in courts<br>using accoutrements/appointments to resolve situations<br>deploying safety equipment at accident, crime, incident or other emergency situations<br>undertaking routine equipment maintenance<br>maintaining a professional safety first attitude to the use of police equipment<br>applying driving skills, ie. system of car control, pull push steering |
| **Resource implications** | Access to equipment identified within the Range of Variables<br>Access to weapons firing ranges |
| **Consistency in performance** | Evidence of competency in this unit will need to be gathered over time and from across a range of simulated or actual workplace situations |

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| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environment. In the case of weapons and 'use of force' equipment, assessment should be undertaken in simulated workplace settings |

**KEY COMPETENCY**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 2 | 1 | 1 | 2 |

# PUAPOL006A Facilitate effective communication in the workplace

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to communicate verbally and non-verbally (body language) in the workplace.<br>This unit does not address written communication. |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Assess situations and adapt communication technique accordingly** | 1. Verbal communication is tailored to the identified audience of recipients from a range of communication approaches<br>2. Body language and non-verbal behaviour is correctly assessed and responded to appropriately<br>3. Active listening skills are employed and questioning techniques used to clarify issues<br>4. Communication strategies adopted reflect consideration of cultural, gender, age issues and are in accordance with jurisdictional law, policy and procedures<br>5. Where required expert advice is sought or referrals made according to agreed procedures<br>6. Contradictions, ambiguities, uncertainty or misunderstandings are identified and checked with a range of sources and references |
| **2. Communicate effectively in the workplace** | 1. Interpersonal communication techniques and skills are selected from a range of options and appropriately applied<br>2. Communication is clear, concise, accurate and understandable |
| **3. Participate in meetings** | 1. Supervisors and other colleagues are briefed with regard to the meeting's purpose and proposed positions to be put<br>2. Documents to be used in meetings are obtained/researched<br>3. Own contributions are prepared in advance relevant to the purposes of the meetings and supportive of the organisation's corporate goals and objectives<br>4. Own position is clearly and effectively stated and substantiated |

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| **4. Utilise conflict resolution/negotiation skills to address issues/ incidents** | 1. Control and objectivity is maintained at all times in conflict situations<br>2. Situational conflict is, as far as possible, de-escalated<br>3. Persons in conflict are separated, where appropriate, and relevant solutions negotiated or imposed that comply with jurisdictional law, policy and procedures<br>4. Where required external agencies are accessed and utilised, according to agreed procedures |

## RANGE OF VARIABLES

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|---|---|
| **Situations cover all taskings undertaken by officers, whether reactive or proactive patrolling, undertaking station duties, etc and relate to circumstances in which the officer is in contact with other persons. Such processes may include** | face to face<br>single or groups - with public<br>suspects<br>criminals<br>fellow officers<br>victims<br>giving and/or receiving instructions and lawful direction<br>responding to inquiries<br>providing verbal reports or seeking information<br>interviewing persons |
| **Body language may include** | the non-verbal characteristics exhibited by each person in response to the presence of police officers or lawful instruction given by such officers. Such characteristics may represent positive compliant behaviour or a negative non-cooperative/aggressive response. |
| **A full range of human characteristics/factors that impact on the communication process may include** | Gender<br>Ethnicity<br>Aboriginality<br>Age<br>geographic and demographic impacts<br>health and physical capacity<br>self image<br>personality<br>family situation/security<br>peer group pressures<br>previous experiences/encounters with police/other authorities<br>impacts of alcohol and legal (recreational and prescription) and illegal drugs |

| | |
|---|---|
| **Problem areas for resolution may include** | workplace grievance situations<br>workplace disputes, workplace complaints<br>domestic disputes, serving summons/orders<br>disruptive public behaviour<br>disputes at traffic accident sites<br>disputes over procedural issues, eg: rallies, demonstrations, processing/charging persons<br>arrest scenes<br>crime scenes<br>life threatening situations, (eg family hostage situations, confrontations with armed persons)<br>controlling crowds |
| **De-escalation means** | reducing a situation to a point where the issue is reduced to a controllable level and the risk to life or property is minimised |
| **Relevant solutions, depending on the actual situation, may include the use of one or more techniques such as** | the issuing of lawful instruction/direction<br>employment of de-escalation processes<br>the 'use of force' and/or 'use of lethal force'<br>arresting, cautioning, reporting and detaining<br>accessing further assistance from either fellow officers/other emergency service/community support agencies victim's/suspect's relations and/or friends<br>provision of on-the-spot counselling<br>The development of appropriate response strategies should also take into account the needs and characteristic of factors such as age, gender, cultural/social background |
| **External agencies may include both government and non-government counselling, mediation and support agencies, such as** | Dept of Community Services<br>Local church counselling centres<br>Ethnic advisory services<br>Aboriginal liaison centres<br>Women's refuges<br>Crisis and sexual assault referral centres<br>Child Protection agencies<br>Dept of Health and associated disability support groups, and<br>Internal police support and counselling services<br>Negotiation can take place with supervisors, colleagues and members of the public |
| **Interpersonal skills may include** | Empathy<br>fairness<br>appropriate language<br>recognition and professional response to cultural diversity |

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| **Meetings may include** | Formal, Informal, Preplanned, and involve functional area/authority personnel, and may be for:<br>occupational health & safety<br>operational planning<br>operations assessment/debriefings |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in the ability to effectively interact and communicate with colleagues and clients |
| **Interdependent assessment of Unit** | Pre-requisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | the communicative process and internal/external (to the individual officer) barriers to effective communication<br>the impacts of age, gender, ethnicity/Aboriginality, special needs groups, personality, drugs/alcohol, etc on the communicative process<br>the meanings of various body language forms<br>various support agencies available and the types of services offered<br>organisational policy and procedures covering verbal communication requirements<br>organisational policy and operational procedures regarding critical incident negotiation<br>organisational 'Codes of Ethics'<br>Anti-discrimination Act<br>Disability Act |
| **Underpinning skills** | Counselling<br>conflict negotiation/resolution/mediation<br>incident de-escalation<br>using verbal communication to take control of situations<br>using interpreter services<br>adapting personal communication style to a variety of situations including those requiring sympathy and empathy<br>effectively communicating instructions/directives to suspects/victims and other members of the public |
| **Resource implications** | No special requirements |
| **Consistency in performance** | Evidence of competence will need to be gathered over time and from across a range of actual workplace or simulated situations |
| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |

## KEY COMPETENCY

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 2 | 3 | 2 | 2 | 1 | 3 | 1 |

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# PUAPOL009A Assist in the judicial process

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|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to prepare and manage evidence, witnesses and offenders for the relevant judicial authority in accordance with jurisdictional laws and organisational policies and procedures. |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Prepare and forward court documents** | 1. Elements/points of proof are comprehensively and accurately included into briefs of evidence<br>2. Jurisdictional/court required document formats and presentation standards are complied with<br>3. Briefs of evidence comply with the jurisdiction's legal rules of evidence<br>4. Documents are forwarded to persons/authorities within required timeframe<br>5. The safety and security of victims and witness evidence is maintained at all times |
| **2. Manage witnesses** | 1. Witnesses are identified and court appearances arranged, including transport and accommodation where required, in accordance with organisational policy<br>2. Liaison with and support of victims/witnesses is maintained in line with organisational policy<br>3. Witnesses are prepared in an ethical manner to enable them to present their evidence in court<br>4. Witness protection procedures are implemented, as necessary, in accordance with organisational policy<br>5. Appropriate victim/witness support agencies are identified and utilised to provide for the needs of victims/witnesses in accordance with organisational policy<br>6. Witness summonses are arranged and served, in accordance with jurisdictional law, to ensure witness attendance at courts |
| **3. Monitor offenders** | 1. Documentation in relation to recording/reporting procedures and location and movement of offenders is completed in compliance with court requirements<br>2. Appropriate authorities and parties are clearly advised in a timely manner of bail conditions, further proceedings and the court's requirements<br>3. Procedures are implemented to ensure compliance of offenders with court requirements |

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| **4 Liaise with and assist prosecuting authority** | 1. Documentation is provided promptly and accurately to support the prosecution's case<br>2. Informal and formal communications channels are maintained with the prosecuting authority<br>3. Judicial guidelines, protocols and legal requirements are observed and adhered to at all times |
| **5 Undertake post-court procedures** | 1. Briefs of evidence and other documents are acted upon in accordance with jurisdictional laws, policies and procedures<br>2. Property and exhibits are returned or disposed of in accordance with jurisdictional laws, policies and procedures<br>3. Relevant parties are notified of court results in a timely manner<br>4. Where required, avenues of possible further action are constructively and objectively discussed with a prosecuting authority |

## RANGE OF VARIABLES

| | |
|---|---|
| **Documents can include** | briefs of evidence<br>reports or legal opinion<br>requests for medical and other specialist reports<br>inquest briefs<br>statements<br>victim impact statements<br>court brief/summary of facts<br>statements/affidavits |
| **Liaison and support for witnesses** | liaison and support for witnesses is a continuing process and will therefore take place before, during and after a trial |
| **Court preparation may include** | being kept informed of investigation/court status<br>being advised of obligations and format for giving evidence<br>being advised of the procedure for obtaining witness fees |
| **Witness protection may be undertaken by** | specialised section for the case officer and may include bail conditions imposed on the offender |
| **Support agencies are statutory or voluntary and may include** | child welfare agencies<br>counseling agencies<br>victims of crime associations<br>court-based witness assistance<br>sexual assault units<br>medical services |
| **Documentation in the monitoring of offenders may include** | field reports<br>fact sheets<br>reporting cards<br>bail reports/advice |

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|---|---|
| **Procedures may include** | those for offenders on bail<br>summonsed or on notice to appear |
| **Authorities to be advised include** | bail/watch house Officer in Charge and the court |
| **Procedures for monitoring offenders may refer to** | curfew checks<br>reporting conditions<br>residential checks<br>bail conditions |
| **Circumstances may include** | the nature of the offender's antecedents<br>protection of witnesses<br>likelihood of repeat offences<br>tampering with evidence |
| **Discussions with the prosecuting authority may include** | formal or informal and occur before during or after a trial |
| **Prosecuting authority may include** | Coroner and assistance to the prosecuting authority may be required before during and after court |
| **Demeanour may include** | dress standard<br>appearance<br>deportment<br>confidence |
| **Professional standards may include** | integrity<br>voice clarity<br>language<br>impartiality<br>respect for people and offices held |
| **Necessary post-court procedures may include** | discussion of possible appeal<br>implementation of judicial orders such as for confiscation or destruction of property |
| **Relevant parties to be notified may include** | the victim<br>the witness<br>internal and external agencies<br>other police<br>foreign embassies<br>defence forces<br>parents/care givers<br>Aboriginal legal aid<br>government departments |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in the application of jurisdictional laws, policies and procedures in effectively preparing and managing evidence, witnesses and offenders |
| **Interdependent assessment of Unit** | Pre-requisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | government and policy environments within which interviews will be managed<br>organisational goals and objectives<br>relevant law (including the rules of evidence, continuity of evidence), policy and procedures<br>victim/witness support services<br>compilation of a brief of evidence<br>court procedures and processes |
| **Underpinning skills** | oral communication skills (briefing, responding to questioning, listening, reflecting, establishing rapport, negotiation, conflict resolution)<br>written communication in preparing briefs of evidence, exhibit register<br>organisation and time management skills<br>computer and information management skills<br>operational safety skills<br>witness/victim management skills, in particular cultural awareness skills, ethical behaviours and integrity<br>decision making and problem solving |
| **Resource implications** | No special requirements |
| **Consistency in performance** | Evidence for demonstration of competency in this Unit should be gathered over time and from a range of actual workplace or simulated situations |
| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |

## KEY COMPETENCY

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 3 | 3 | 2 | 3 | 2 | 3 | 2 |

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# PUAPOL010A Perform administrative duties

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to perform a range of administrative functions and to prepare, submit and/or assess documentation pertaining to organisational needs, licensing/regulatory requirements and the receipt, storage and recording of money/property. |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Manage administrative tasks correspondence and records** | 1. Administrative tasks are assessed, prioritised and executed to ensure effectiveness of operations<br>2. Correspondence and records are completed accurately and in a timely manner<br>3. Correspondence and records are maintained securely in compliance with organisational procedures<br>4. Movement of correspondence and records is accurately recorded<br>5. Correspondence and records are submitted and stored as required and in accordance with organisational guidelines |
| **2. Maintain notes and records of duties performed** | 1. Notes/records of duties are completed and maintained in accordance with organisational requirements<br>2. Notes are current and accurately maintained |
| **3. Complete and submit departmental reports and forms** | 1. Documentation is completed in accordance with organisational requirements<br>2. Content of forms/reports is accurate and complete, legible, understandable and in the correct formats<br>3. Documentation is submitted within the required timeframe |
| **4. Prepare, submit and/or assess documentation for the issue of licences and/or regulatory authorisations** | 1. Document preparation procedures comply with organisational requirements<br>2. Document assessment procedures and applicant security checks carried out comply with organisational requirements<br>3. Appropriate licence authority is correctly issued and details recorded as per organisational policy and procedures |
| **5. Receive, record and store money and property** | 1. Receipt, recording and storage procedures comply with jurisdictional laws, policy and procedures<br>2. Maintenance of security of stored money/property complies with organisational policy and procedures<br>3. Property received is recovered from storage and disposed of in accordance with organisational policy |

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and procedures

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| RANGE OF VARIABLES | |
|---|---|
| **Administrative tasks cover the full range of tasks undertaken in support of the function's operational activities and may include** | initiating telephone calls<br>stores requisitions and distribution<br>equipment maintenance<br>organising transport |
| **Correspondence and records may include** | formatted documents<br>audible and accountable documents<br>investigation files<br>internal and external memos<br>computer<br>audiotape records |
| **Departmental reports and forms may include** | incident reports<br>motor vehicle log books<br>property book and disposal schedules<br>interview reports<br>time sheets, leave forms<br>patrol activity reports<br>coroner's reports<br>exhibit/evidence reports/briefs<br>accoutrements usage reports |
| **Preparation and assessment for licences and/or regulatory authorisations may include** | shooters permits (not all jurisdictions)<br>firearms licences (not all jurisdictions)<br>drivers licences (not all jurisdictions)<br>over dimension haulage permits<br>(nor all jurisdictions)<br>'burning off' (not all jurisdictions)<br>and may include liaison with other agencies such as Local Government, Fire Services, Road Transport Authorities |
| **Assessment procedures may include** | checking submitted documentation for accuracy / completeness<br>checking applicant's criminal record<br>personal references<br>health suitability |
| **Money and/or property received may or may not become 'evidence' in later court proceedings and may include** | The disposal of money and/or property could be through return to lawful claimant, forfeiture to the Crown (under Confiscated Assets laws) or disposed of through other organisationally sanctioned means such a public auction |

| | |
|---|---|
| **Money and property could be** | found and handed in to police<br>recovered/confiscated in the process of an investigation<br>recovered from accident scenes |
| **Money and/or property received may or may not** | become 'evidence' in later court proceedings. |
| **The disposal of money and/or property could be** | returned to lawful claimant<br>forfeited to the Crown (under Confiscated Assets laws) or disposed of through other organisationally sanctioned means such as a public auction |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in accurate preparation of all documentation, licence issue and receipt, storage and recording of money/property consistent with organisational policies, procedures and guidelines |
| **Interdependent assessment of unit** | Prerequisite: Nil<br>Co-requisite: Nil |
| **Underpinning knowledge** | jurisdictional laws<br>by-laws and regulations relating to the preparation of documentation<br>issuing of licences/authorities and storage of property/money<br>the various types of departmental and licensing system documents/proformas/logs and the preparation requirements for each |
| **Underpinning skills** | accurate keyboarding<br>producing clear and concise written communication<br>accessing databases for the purposes of checking applicant details/history<br>accurately completing departmental forms and reports<br>complying with organisational requirements regarding completion/currency of maintenance logs, patrol records<br>the application of professional judgement in the issuing of licences/regulatory authorisations |
| **Resource implications** | Access to appropriate departmental proformas, licence applications, property books and storage systems<br>Access to information databases to enable applicant suitability checks |
| **Consistency in performance** | Evidence of competency will need to be gathered over time and from across a range of simulated and/or actual workplace situations |

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|---|---|
| **Context of assessment** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |

**KEY COMPETENCY**

| Collect, analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 3 | 2 | 1 | 2 | 1 | 2 | 2 |

# PUALAW003A Give evidence in a judicial or quasi-judicial setting

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers the competency to prepare evidence, present evidence and follow up on the outcomes of proceedings |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Prepare for proceedings** | 1. Arrangements, role and involvement in proceedings are confirmed<br>2. Documentation and exhibits are prepared in accordance with legislative requirements and organisation's policies and procedures |
| **2. Present evidence** | 1. Proceedings and protocols relevant to the jurisdiction involved are adhered to throughout the proceedings<br>2. Rules of evidence relevant to the jurisdiction are adhered to<br>3. Evidence is presented in a clear, concise and articulate manner<br>4. Considered expert evidence is provided on request in accordance with organisation's policy and consistent with qualifications and expertise |
| **3. Follow up outcomes of proceedings** | 1 The outcomes of the proceedings are noted and filed, and reports completed where required according to organisation requirements<br>2 Any required actions are implemented in accordance with organisation policies and procedures |

## RANGE OF VARIABLES

Judicial and quasi-judicial settings include criminal, coronial and civil courts, defence tribunals, Industrial Relations Commission, state industrial tribunals, Human Rights and Equal Opportunity Commission (HREOC), Land and Environment Court, Royal Commissions

| | |
|---|---|
| **Documentation and exhibits may include** | reports<br>photographs<br>items of evidence<br>media footage<br>reports of incidents<br>radio/telephone records<br>logs |
| **Witnesses may include** | those directly involved<br>bystanders and experts |

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|---|---|
| **Court protocols** | voice clarity<br>language<br>impartiality<br>respect for people and offices held<br>standards of dress<br>forms of address |
| **Organisation's policy and procedures may vary between sectors and organisations and may include** | legislation relevant to the proceedings<br>legislation relevant to the organisation<br>operational performance standards<br>organisational personnel practices and guidelines<br>organisational quality standards |
| **Proceeding may include:** | rules of court<br>judicial and quasi judicial tribunals |
| **Arrangements, role and involvement may include:** | confirmation of time<br>date and location of proceedings<br>confirmation of evidence required to be presented |

## EVIDENCE GUIDE

| | |
|---|---|
| **Critical aspects of evidence** | All documentation and evidence at hand<br>Accurate and articulate presentation of evidence |
| **Interdependent assessment of units** | Pre-requisite units: Nil<br>Co-requisite units: Nil |
| **Underpinning knowledge** | common law vs judicial precedent vs legislation<br>specific powers of organisation<br>court/tribunal/commission structures<br>jurisdiction of each court/tribunal/commission |
| **Underpinning knowledge** | appeals systems<br>role of legal personnel in judicial/quasi-judicial systems<br>procedures and protocols in different judicial/quasi-judicial systems<br>types of offences<br>general principles of criminal liability<br>exemptions and defences<br>types of evidence admissible in judicial/quasi-judicial systems<br>legislative requirements of presenting evidence<br>organisation policies and procedures relating to preparation of documents and evidence and providing expert opinion<br>use of notes in court/tribunal/commission |
| **Underpinning skills** | presenting evidence clearly and concisely<br>writing reports |

| | |
|---|---|
| | word-processing<br>taking notes |
| **Resource implications** | No special requirements |
| **Consistency of performance** | Evidence should be gathered over a period of time in a range of actual or simulated workplace environments |
| **Context of assessment** | On the job or in a simulated environment. Written or verbal tests may be used as supporting evidence |

## KEY COMPETENCY

| Collect analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 1 | 2 | 1 | 1 | 2 | 1 | 1 |

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# PUATEA001A Work in a team

| | |
|---|---|
| **UNIT DESCRIPTOR** | This unit covers competency in working with others and making a positive contribution to the effectiveness and efficiency of a team in a work environment when predominantly under direct supervision. Limited responsibility towards others is required |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Contribute to team activities** | 1. Roles and responsibilities of team members are recognised<br>2. Contribution is made to identifying team goals and objectives<br>3. Activities are completed to required standard within timeframe and in accordance with organisation's policies and procedures<br>4. Assistance in the completion of tasks is requested from other team members where appropriate<br>5. Team members are assisted to ensure efficient and safe completion of tasks in accordance with organisation's policies and procedures<br>6. Participation by team members is encouraged and acknowledged<br>7. Changes in allocated role and responsibilities are implemented<br>8. Team meetings are attended regularly and punctually |
| **2. Share knowledge and information** | 1. Information relevant to work is communicated effectively with team members to enable efficient completion of tasks in accordance with the organisation's policies and procedures<br>2. Knowledge and skills are shared between team members |
| **3. Give and receive support to/ from team members** | 1. Feedback/ assistance is given to other team members in an appropriate manner<br>2. Team members are supported in achieving workplace goals<br>3. Feedback from other team members is acted upon appropriately |

| RANGE OF VARIABLES | |
|---|---|
| **Teams comprise** | two or more people working towards a shared purpose |

| | |
|---|---|
| **Appropriate situation to request assistance may include** | difficulty meeting timelines<br>to comply with occupational health and safety requirements<br>unsure of best method to complete task<br>to maximise efficiency |
| **Assisting other team members may include** | own tasks completed<br>to comply with occupational health and safety requirements<br>assistance requested<br>actions of others do not comply with requirements<br>other team member appears to be having difficulty completing task |
| **Contribute to workplace goals may include** | completion of task<br>achievement of new competencies<br>development of new skills<br>attainment of new knowledge<br>personal development |
| **Activities may include** | Working with other members of a team in a work environment<br>or responding in a combat or support role to natural emergencies technological/industrial emergencies civil/political emergencies and non emergency operations including community events<br>public relations – activities<br>sporting events<br>parades<br>festivals |
| **Conditions under which this competency may be required include** | hazardous conditions eg adverse weather<br>after dark operations<br>difficult terrain<br>time pressure<br>varying time frames from immediate/short term to long term response operations<br>varying access to equipment/resources necessitating the use of improvised techniques<br>single or multi organisation responses<br>dealing with human behaviours that result from emergency situations<br>non-emergency operations and events eg training and community education |
| **Appropriate feedback on performance may include** | acknowledging initiative<br>aptitude<br>ideas<br>performance and assistance<br>providing constructive criticism |

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|---|---|
| **Organisation's policy and procedures may vary between sectors and organisations and may include** | legislation relevant to the operation/incident/response<br>legislation relevant to the organisation<br>operational<br>corporate and strategic plans<br>operational procedures<br>operational performance standards<br>organisation's personnel practices<br>policy and procedures<br>organisation's quality standards |
| **Communication processes may include** | established organisation's procedures for recording and reporting<br>the use of logs<br>notebooks<br>pagers<br>radios and telephones<br>team members may be geographically dispersed and require communication systems and technology to remain in contact |

## EVIDENCE GUIDE

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|---|---|
| **Critical aspects of evidence** | It is essential for this unit that competence be demonstrated in the effective communication and contribution to the achievement of tasks consistent with agreed goals |
| **Interdependent assessment of units** | Pre-requisite units: Nil<br>Co-requisite units: Nil |
| **Underpinning knowledge** | composition of workplace teams and roles and responsibilities of team members<br>techniques for giving and receiving feedback in a constructive manner<br>techniques for supporting others<br>non operational and operational communication processes |
| **Underpinning skills** | listening and using a variety of communication skills<br>interpersonal skills<br>providing suggestions and information<br>encouraging others/ team members<br>following instructions<br>reporting information |
| **Resource implications** | No special requirements |
| **Consistency in performance** | Evidence will need to be gathered over time in a variety of team situations including regular work group and occasional or one-off work group |
| **Context of assessment** | On the job or in a simulated workplace environment |

## KEY COMPETENCY

| Collect analyse and organise information | Communicate ideas and information | Plan and organise activities | Work with others and in teams | Use mathematical ideas and techniques | Solve problems | Use technology |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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# RTC2203A Conduct visual inspection of park facilities

This competency standard covers the process of routine visual inspection of park and recreational facilities to identify visible hazards and existing and/or potential risks. Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Inspection at this level is usually carried out according to establish guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for visual inspection | 1.1 | Site plans and inspection checklists are interpreted and clarified with the supervisor. |
| | | 1.2 | Specific terminology used in checklists is clarified. |
| | | 1.3 | **Park site** to be inspected is identified and located on the site plan. |
| | | 1.4 | Park **facilities, equipment** and **services** are identified on site from checklist descriptions and site plan. |
| 2 | Undertake visual inspection | 2.1 | Park facilities, equipment and services are inspected and compared against enterprise presentation standards and OHS requirements. |
| | | 2.2 | **Health and safety hazards** and **adverse environmental impacts** are identified and recorded on the appropriate form. |
| | | 2.3 | Situations requiring urgent action are reported immediately to supervisor, in accordance with enterprise working procedures. |
| 3 | Submit report | 3.1 | Inspection activity, reports and checklists are concise and accurate, and comply with enterprise standards. |
| | | 3.2 | Checklist and/or report is forwarded to supervisor promptly, according to enterprise working procedures. |

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## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in particular training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What kinds of **park site** may require visual inspection? | A range of parks catering to public recreational activities may include municipal playgrounds, picnic grounds and playing fields, and State and Federal conservation, recreational and game reserves, and crown land. |
| What **facilities and equipment** may require inspection? | Facilities and equipment may include playgrounds, playground soft fall and pathways, play equipment, parks and street furniture and structures, fences, barbeques, steps and stairs, bollards, tree and grass protection devices, bins, signs, toilets, shelter buildings and structures, and paved, turf and/or grassed recreational areas. |
| What **services** may require inspection? | These may include power, gas, water, and telecommunication lines and outlets. |
| What **Health and safety hazards** may be identified? | Health and safety hazards may include damage to services and outlets, damaged parts, broken glass, syringes, loss of soft surfacing, protruding nails, bolts and splinters, sudden changes in surface levels such as holes and trip points, and worn, rusted and weathered components, overfilled and damaged litter and recycling bins, waterlogged areas, and dysfunctional water bodies and features. |
| What **adverse environmental impacts** may be identified? | These may include environmental nuisance levels of noise associated with the movement of damaged or unserviced parts, smoke emissions from malfunctioning barbecues, odours from malfunctioning water-based amenities and features, waterlogging and run-off associated with leaking water taps, lines and attachments, weed invasion associated with overgrown areas and edges, dumped rubbish, and natural ecosystem depletion associated with the removal of fallen logs and sticks by recreational visitors to fuel wood fires and barbecues when wood is not provided. |

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For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in conducting a visual inspection of park facilities requires evidence that a person working in a public environment can identify malfunctioning components of facilities, equipment and services, and the associated OHS and environmental hazards. The skills and knowledge required for this standard must be **transferable** to a wide range of work environments, with different facilities and use. For example, the inspection techniques required to identify malfunctioning components of equipment in a playground may also be used to assess and identify malfunctioning components of sports equipment on a playing field, as in preparing a turf surface for play.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Purpose of park facilities inspections, in providing information for effective maintenance and repair work particularly in relation to end use of the facilities and equipment, and the safety of users.<br>• The practical application of site plans, checklist descriptions and presentation standards to locate and effectively assess facilities and equipment against the required parameters.<br>• The effect of adverse outdoor climatic conditions (e.g., rain, hail, wind, or very high ultraviolet radiation), on park facilities inspection activities.<br>• Potential public nature of park inspection activities.<br>• Hazards investigation and risk assessment.<br>• Occupational Health and Safety issues, legislative requirements and Codes of Practice. |

- Recognition of the range of park facilities, equipment and services relevant to the enterprise (including recommended use, safety parameters, maintenance schedules and manufacturers specifications).
- Terminology used to describe different components of the range of facilities, equipment and services relevant to the enterprise.
- The hazards that are likely to be encountered by visitors using the park facilities and equipment.
- Reporting requirements, procedures and materials for use in park inspection.
- Cleaning, servicing and hygiene requirements of public conveniences.

| | |
|---|---|
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Participate in teams and contribute to team maintenance and presentation objectives.<br>• Interpret instructions, communicate with team members and supervisor, and use the written materials necessary to effectively complete the inspection task.<br>• Measure distance and calculate area count multiple facilities of the same type, and compare numerically determined specifications to the enterprise standards.<br>• Assess the hazards and associated environmental implications of malfunctioning facilities, equipment and services. |

## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information relating to the inspection activities and problems encountered should be discussed with other members of the work team and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Enterprise work procedures, site plans and presentation standards should be consulted, interpreted and applied to conduct visual inspection activities, with further clarification sought from the supervisor where necessary and in coordination with other work team activities at the site. |
| 3. How are **activities planned and organised (1)**? | Equipment, materials and work procedures for visual inspection of facilities will need to be arranged before and between work periods, and there may be some responsibility for coordinating work with others. |
| 4. How can **team work (1)** be applied? | The visual inspection program may involve working with other members of a team to complete the program. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Numerical comparison of actual facilities with the standards for presentation and safety will require mathematical application. |
| 6. How can **problem-solving skills (1)** be applied? | Problems relating to inspection techniques, processes, the park area, workplace safety, and other team members may arise during the inspection of park facilities. |
| 7. How can the **use of technology (1)** be applied? | Technology may be applied in the preparation, use and maintenance of telecommunication and reporting equipment. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is critical information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC2209A Install, maintain and repair fencing

This competency standard covers the functions required to carry out safe and effective conventional fencing work. Conventional fencing refers to post and wire/wire netting under tension, and can be used for animal control or as a deterrent for people and vehicles. It requires a working knowledge of the uses and structure of a range of fences and fencing materials, equipment and tools. It requires an awareness of workplace safety and environmental practices associated with maintenance activities. The work functions in this standard are likely to be carried out under routine supervision within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for fencing work | 1.1 | **Tools and materials** appropriate to meet job requirements are selected and checked against the **work plan.** |
| | | 1.2 | Faulty or unsafe tools are identified and segregated for repair or replacement according to **enterprise requirements.** |
| | | 1.3 | **Hazards** in the workplace are assessed and minimised according to **OHS** and enterprise requirements. |
| | | 1.4 | Transport of fencing materials and equipment (including safety equipment) is arranged and placed according to work plan. |
| 2 | Carry out fence installation, repair and maintenance | 2.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS and workplace procedures. |
| | | 2.2 | Fence is installed, maintained or repaired according to manufacturers guidelines, OHS and enterprise requirements. |
| | | 2.3 | Gates are attached and appropriately positioned for correct operation and function according to work plan. |
| | | 2.4 | Dismantling operations are carried out as required with a focus on minimising unnecessary damage and recovering all **re-useable materials.** |

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| | | | |
|---|---|---|---|
| | | 2.5 | **Repair** requirements are identified and carried out according to work plan procedures. |
| | | 2.6 | **Replacement posts** are installed to appropriate level and secured through soil replacement and ramming. |
| | | 2.7 | Wire is strung, mounted and fixed according to requirements of work plan or supervisor's instructions. |
| | | 2.8 | All work is carried out safely according to OHS and enterprise requirements. |
| 3 | Complete fencing work | 3.1 | Post holes are firmly filled to remove potential hazards and minimise environmental impact. |
| | | 3.2 | Work site is **cleared and tidied** and all non-reusable materials are disposed of in an environmentally responsible manner. |
| | | 3.3 | Tools and re-usable materials are transported safely from the work site, cleaned and stored according to enterprise and manufacturers recommendations. |
| | | 3.4 | Further identified work or repair requirements are reported according to enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What **tools and materials** might be used? | Tools may include post driver, posthole borer, crowbar, wire strainers and fencing pliers. Materials may include fencing wire which may vary - plain, barbed, ringlock and netting. |
| What information may be included in a **work plan?** | This may include designated work tasks, tools and materials for use, procedures for pre-start and safety checks of tools, timeframe for work completion, supervisor's instructions and reporting requirements. |

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| What may be involved in routine **pre-operational checks** of tools? | This may include routine safety and pre-start checks, and preparatory procedures including cleaning, lubricating, hand sharpening, tightening, basic repairs and adjustments. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators' manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions. |
| What **hazards** may be relevant to this standard? | This may include exposure to hazardous noise, treated timbers, wire breaking, manual handling, trip points, dust solar radiation and adverse weather conditions. It may also include electricity associated with powered tools. |
| What **OHS** requirements may be applicable to this standard? | Safe systems and procedures for:<br>• the use of fencing tools and materials<br>• the operation of vehicles<br>• hazard and risk control<br>• lifting, carrying and handling techniques<br>• manual handling especially when handling posts, coils of wire and using tools<br>• the use, maintenance and storage of personal protective equipment<br>• outdoor work including protection from solar radiation<br>• protection from dusts<br>• administering first aid. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, overalls, gloves, eye protection, hearing protection and sun protection. |
| What **re-useable materials** may be recovered? | This may include wire, hinges, supports, gates, netting and posts. |
| What **repairs** may be carried out? | This may include replacing posts, rejoining and restraining wires, gate hinges, gate chains and gates, other repairs to gates. |

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| What requirements may be considered when **replacing posts?** | Replacements posts need to be consistent with existing fence, height and type. |
| What may be involved in **clearing and tidying** a work site? | This may involve replacing soil, and clearing, removal and safe disposal of non-reusable materials. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in this standard requires evidence of the ability to select the correct tools and equipment and apply appropriate methods to carry out routine maintenance to conventional fences. It also requires the ability to apply task instruction, complete work requirements in an efficient and timely manner, identify re-usable materials, and minimise impacts to the environment. The skills and knowledge required must be **transferable** to a different work environment. For example, this could include different fencing types, environments and industry settings.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Uses and structures of a range of conventional fence types.<br>• Uses and types of fencing tools and materials.<br>• Fencing wire, knots, tensions, capabilities and limitations.<br>• Strainer assembly, gate types and construction.<br>• Common fencing hazards and safety precautions.<br>• OHS legislative requirements and Codes of Practice including hazard and risk assessment relevant to the work function.<br>• Relevant Codes of Practice with regard to protection of the environment. |

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| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Demonstrate safe working practices.<br>• Minimise environmental impact.<br>• Interpret and apply task instruction.<br>• Complete work efficiently within timeframes.<br>• Maintain physical fitness.<br>• Read and interpret work plans.<br>• Communicate with work team and supervisor.<br>• Calculate and measure fencing wire requirements. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Information with regard to the operation of tools and application methods may be discussed with the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to the performance of tools and any identified faults may be reported to the supervisor for repair and organised by records. |
| 3. How are **activities planned and organised (1)**? | Activities involving filling in post holes may be planned and coordinated with repair activities to minimise potential hazards and environmental impact. |
| 4. How can **team work (1)** be applied? | In the application of methods and procedures to complete scheduled fencing tasks within timeframes. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques may be applied in the calculation and measurement of fencing wire and other materials to complete tasks. |

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| 6. How can **problem-solving skills (1)** be applied? | Faulty tools or malfunctions may be reported for repair, and arrangements made for replacement in order to minimise disruption to repair and maintenance schedules. |
| 7. How can the **use of technology (1)** be applied? | Technology may be used to communicate and calculate information with regard to fencing requirements. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC2210A Maintain properties and structures

This competency standard covers the functions required to maintain and repair properties and structures in a situation that does not require the specialist skills of another trade. It involves the application of basic skills and knowledge to match equipment and materials to job requirements, and select the appropriate tools to carry out repairs. The work is likely to be carried out under routine supervision with intermittent checking usually within a team environment.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Identify and confirm maintenance requirements | 1.1 | Visual inspections are conducted of **structures and facilities** to locate and evaluate defects, deterioration and impending defects. |
| | | 1.2 | **Property infrastructure and resources** are checked for correct operation, minor maintenance needs and damage. |
| | | 1.3 | **Maintenance plan** is confirmed according to supervisor's instructions and **enterprise requirements.** |
| 2 | Select and prepare tools, equipment and materials | 2.1 | **Tools, equipment and materials** appropriate to the job requirements are selected and checked for serviceability according to manufacturers specifications. |
| | | 2.2 | Faulty or unsafe tools are identified and segregated for repair or replacement and reported according to enterprise requirements. |
| | | 2.3 | Existing and potential **hazards** to health and safety are identified, assessed and reported according to **OHS** and enterprise requirements. |
| 3 | Carry out routine maintenance | 3.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS requirements. |

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| | | 3.2 | Routine maintenance to structures and surroundings is carried out according to the maintenance plan and enterprise requirements. |
| | | 3.3 | Minor repairs to building cladding, and treatments to structural finishes, are carried out as required to minimise deterioration. |
| 4 | Complete maintenance activities | 4.1 | Worksite, tools and materials are cleaned, returned to operating order, and stored according to OHS and enterprise requirements. |
| | | 4.2 | Unwanted materials and waste from maintenance activities is collected, treated and disposed or recycled according to enterprise, OHS and **environmental** requirements. |
| | | 4.3 | **Relevant information** is documented according to industry, enterprise requirements and OHS requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What **structures and facilities** might be relevant to this standard? | This may include buildings, greenhouses, igloos, potting houses, shade houses, sheds, cool rooms, glass houses, staff rooms, water tanks, yards, stock handling structures, silage pits, fodder and grain storages, pergolas, poly-tunnels, park furniture, car parks, roads, pathways, work sheds, information boards, benches, landscape features and site furniture. Fences may include weld mesh, picket, post and wire, brick, and hedges. |

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| What **property infrastructure and resources** might be relevant to this standard? | This may include drains and drainage systems, waterways and water supply systems, dams, roads, tracks, soil conservation works, car parks, vegetation, windbreaks, paths, silage pits and loading bays. Drains may include agricultural drains, spoon or swale drains and culverts. Water supply may include irrigation systems, dams and troughs. |
| What information may be included in a **maintenance plan**? | This may include specific intervals and procedures for maintenance procedures, designated work tasks, routine servicing procedures, instructions for pre-start and safety checks, repair requirements, current operational details, tools, parts and supplies allocated for use, instructions for cleaning and disposal of waste and contaminants, supervisors instructions, timeframe for work completion, and reporting requirements. |
| What **enterprise requirements** may apply to this standard? | This may include local building codes, Australian Quality Standards, Standard Operating Procedures (SOPs), industry standards, work notes, product labels, manufacturers specifications, Material Safety Data Sheets (MSDSs), operator and emergency procedures manuals, technical information, enterprise policies and procedures (waste disposal, recycling and re-use guidelines), supervisors oral or written instructions and reporting requirements. |
| What **tools, equipment and materials** may be used? | This may include hand or small power tools, cutting tools, and measuring equipment. Structural finishes may require paint or stains. Cladding maintenance may require corrugated iron, weatherboards, glass, shade cloth, plastic or cement sheeting. Concrete tools and equipment may also be required. |
| What **hazards** may be associated with maintenance activities? | Workplace hazards may include exposure to loud noise and fumes, solar radiation, dust and hazardous substances. It may also include oil and grease spills and electricity while using powered tools. |
| What **OHS** requirements may | Systems and procedures for: |

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| be relevant to this standard? | • the safe operation of tools and equipment<br>• maintenance and repair methods<br>• identifying and reporting hazards<br>• safe lifting, carrying and manual handling<br>• the safe handling and storage of hazardous substances<br>• the appropriate use of personal protective equipment<br>• outdoor work including protection from solar radiation<br>• working at heights, e.g., from a ladder<br>• working in confined spaces<br>• protection from hazardous noise, organic and other dusts. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or facemask, and sun protection. |
| What may be involved in carrying out **routine maintenance**? | Routine maintenance may include assisting in the erection of simple property structures, identifying and repairing damage or applying treatments to building cladding and structural finishes, checking fences and repairing holes or other damage, checking paths, tracks and roadways for potholes, weeding and undertaking effective drainage and minor repairs. It may also include checking water supplies for correct operation and pollution, and carrying out repairs and maintenance as required. |
| What positive **environmental** procedures may be applied? | The safe and environmentally responsible disposal of maintenance debris and waste. |
| What **relevant information** may be documented? | This may include the use and performance of tools and equipment, operational faults or malfunctions, completed maintenance, repair tasks and outcomes, and hazard and incident reports. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

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# Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in maintaining properties and structures requires evidence of the ability to conduct simple repairs, erect structures, apply task instruction, and maintain a clean and safe worksite. It also requires an awareness of daily work routines including the need to keenly observe and report the need for maintenance and repair. Evidence must be demonstrated in the employment of safe workplace and environmentally responsible practices. The skills and knowledge required to maintain properties and structures must be **transferable** to a different work environment. For example, this could include different properties and structures, maintenance activities and industry settings.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Characteristics, capabilities and limitations of materials, equipment and tools.<br>• Operation of water taps and reticulation systems.<br>• Types of building cladding and finishes, purpose and use.<br>• Identification of defects and apppropriate repair methods.<br>• Appropriate selection of repair materials.<br>• OHS legislative requirements and Codes of Practice.<br>• Relevant Codes of Practice with regard to protection of the environment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Interpret and apply task instructions.<br>• Operate a broad range of tools and equipment.<br>• Ability to work in team environment.<br>• Observe and report on the condition of structures |

and equipment.

- Demonstrate safe working practices.
- Communicate with work team and supervisor.
- Estimate and calculate volumes and usage.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information with regard to equipment operation, safety procedures and their application may be discussed with work colleagues or the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to the performance of equipment and completed repair and maintenance, may be detailed and organised by reports for analysis. |
| 3. How are **activities planned and organised (1)**? | Activities involving the maintenance, cleaning and storing of machinery and equipment may be planned and coordinated around work schedules or sequenced as required. |
| 4. How can **team work (1)** be applied? | In the application of methods and procedures to effectively complete scheduled maintenance projects within timeframes. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques may be applied in the estimation and calculation of materials requirements. |
| 6. How can **problem-solving skills (1)** be applied? | Equipment faults or malfunctions will need to be arranged for repair or replacement to minimise disruption to work schedules. |
| 7. How can the **use of technology (1)** be applied? | Technology may be used to communicate, measure and record information. |

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**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC2301A Undertake operational maintenance of machinery

This competency standard covers basic maintenance procedures required to support machinery operations. It involves non-specialist skills to perform basic servicing and repairs on a range of machinery according to scheduled maintenance programs. Competency requires an awareness of workplace safety, and positive environmental practices associated with maintenance activities. The work is likely to be carried out under limited supervision with checking only related to overall progress within established enterprise routines and procedures.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for maintenance | 1.1 | **Maintenance plans** are accessed and understood prior to undertaking maintenance work. |
| | | 1.2 | **Tools and supplies** are selected appropriate to job requirements and confirmed against maintenance plan. |
| | | 1.3 | Tools are inspected for serviceability and **prepared** for use according to manufacturers specifications and **enterprise requirements.** |
| | | 1.4 | **OHS hazards** in the workplace are identified, risk assessed and reported according to enterprise requirements. |
| 2 | Perform scheduled maintenance | 2.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS requirements. |
| | | 2.2 | Greasing, lubrication and other **basic servicing** of **machinery** is carried out according to manufacturers specifications and enterprise requirements. |
| | | 2.3 | Equipment is adjusted according to manufacturers specifications and enterprise requirements. |
| | | 2.4 | Basic diagnostic techniques are applied and mechanical faults are identified and rectified according to manufacturers specifications. |

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| | | 2.5 | More serious or complex faults are reported for referral according to enterprise requirements. |
| 3 | Complete maintenance activities | 3.1 | Tools are cleaned and stored according to OHS and enterprise requirements. |
| | | 3.2 | Waste from maintenance activities is collected, treated and disposed or recycled according to enterprise **environmental** requirements. |
| | | 3.3 | Work areas are cleaned, returned to operating condition and maintained according to OHS and enterprise requirements. |
| | | 3.4 | **Relevant information** is documented according to industry and enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What information may be included in a **maintenance plan?** | This may include details of scheduled maintenance and servicing requirements and procedures, tools and supplies required to undertake maintenance tasks, pre-start and safety checks for tools and machinery, mechanical diagnostic procedures, common mechanical faults and adjustment or repair procedures, current operational details, supervisors instructions and reporting requirements. |
| What **tools and supplies** may be required? | This may include hand tools, hand held power tools, grease guns, safety equipment, cleaning and maintenance supplies including grease, fuel, oil, chemicals, water steam, power and air. |
| What may be involved in the **preparation** of tools? | Preparation may include routine safety and pre-start checks, and procedures involving cleaning, lubricating, hand sharpening, priming pumps, clearing filters, basic repairs, tightening and adjustments. |

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| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators' manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions. |
| What **OHS** requirements may be relevant to this standard? | Safe systems and procedures for:<br>• operating and maintaining machinery including hydraulics and guarding of exposed moving parts<br>• hazard and risk control<br>• manual handling including lifting and carrying<br>• the provision of safety decals and signage<br>• handling, application and storage of hazardous substances<br>• outdoor work including protection from solar radiation, dust and noise<br>• lock out or danger tag procedures<br>• protection of people in the workplace<br>• the appropriate use, maintenance and storage of personal protective clothing and equipment. |
| What **hazards** may be associated with maintenance activities? | Workplace hazards may include exposure to loud noise and fumes, solar radiation, dust, and hazardous substances. It may also include oil and grease spills, electricity, mechanical malfunctions and entanglement with machinery from exposed moving parts including hydraulics. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or facemask, and sun protection (sun hat, sunscreen). |

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| What may be involved in **basic servicing** procedures? | This may include greasing and lubricating, carrying out checks of the cooling system, fuel, grease and oil, battery levels, inspections of tyre pressures, fan belts, leads, lines, connections, air filters, electrical, hydraulics, steering, lighting, transmission, and confirmation of safety guards, PTO stubs and shafts. |
| What **machinery** may be covered in this standard? | This may include motorised equipment and implements. Motorised machinery may include sprayers, tractors, mechanical pruners, harvesters, turf mowers, rotary hoes, chainsaws, hedge trimmers, winches, vehicles and motorcycles. |
| How might **mechanical faults** be defined in this standard? | Basic faults reasonably within the scope of a non-mechanic and may include damage, wear, malfunction or unsoundness. |
| What positive **environmental** practices may be relevant to maintenance activities? | This may include the reduction of excessive noise and exhaust emissions, the safe use and disposal of maintenance debris including oil containers, fuel and chemical residues. It may also include preventative measures with regard to soil disturbance, dust and increased run-off flows caused by servicing, maintenance and cleaning activities. |
| What **relevant information** may be documented? | This may include tool usage and operational faults or malfunctions, machinery servicing and repair procedures and outcomes, machinery performance and operational faults or malfunctions, damage details, and hazard and incident reports. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

# Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in performing operational maintenance of machinery requires evidence of the ability to select and match the correct tools and supplies to carry out scheduled servicing and minor repairs to a range of plant and equipment. It also requires the ability to apply operational safety procedures, access and interpret maintenance plans, apply basic diagnostic techniques, recognise and rectify minor mechanical faults, and maintain maintenance records. The skills and knowledge to undertake operational maintenance of machinery must be **transferable** to a different work environment. For example, this could include different machinery and equipment, and workplaces.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Types and uses of lubricants and other commonly used servicing materials.<br>• Operational principles of machinery including mechanical and auto-electrical systems.<br>• Servicing characteristics of plant and equipment.<br>• Types, characteristics, uses and limitations of hand and power tools.<br>• Functions of components of common mechanical and hydraulic systems.<br>• Working principles of 2-stroke, 4-stroke, petrol and diesel engines.<br>• Set-up requirements of plant and equipment, and principles of calibration.<br>• Basic diagnostic processes and techniques.<br>• Environmental Codes of Practice with regard to maintenance activities.<br>• OHS legislative requirements and Codes of Practice.<br>• Hazard identification and assessment.<br>• OHS procedures. |

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| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Select and match tools with work requirements.<br>• Apply hand-eye coordination.<br>• Apply basic diagnostic techniques.<br>• Recognise and rectify common mechanical faults.<br>• Perform scheduled maintenance including basic servicing and minor mechanical repairs.<br>• Read and interpret maintenance plans, manufacturers specifications, safety decals and MSDS.<br>• Effectively communicate with work team and supervisor, report faults, and maintain records.<br>• Measure and calculate volumes, consumption and lubrication requirements. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Information with regard to complex mechanical faults may be reported and referred for repair or replacement. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to machinery servicing, identified faults and repairs undertaken may be documented for reference and analysis, and organised by reports. |
| 3. How are **activities planned and organised (1)**? | Machinery maintenance activities may be planned and coordinated with maintenance schedules and work schedules, or sequenced as required. |
| 4. How can **team work (1)** be applied? | In the application of communication, methods and procedures to complete individual tasks to achieve scheduled maintenance |

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| | requirements. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques may be applied in the calculation and measurement of volumes, weights and consumption, particularly in relation to lubrication and fuel requirements. |
| 6. How can **problem-solving skills (1)** be applied? | Tool faults or malfunctions will need to be repaired or replaced to complete and minimise disruption to scheduled maintenance work. |
| 7. How can the **use of technology (1)** be applied? | To communicate, measure and record information with regard to machinery maintenance, usage and performance. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC2306A Operate vehicles

This competency standard covers the process of maintaining and operating vehicles in a rural, horticultural or land management setting. Competency requires the application of basic driving skills to safely utilise various controls and features of a range of vehicles, and demonstrate safe driving techniques. Competency requires knowledge of legislative requirements with regard to licensing, and an awareness of duty of care to self, others and the environment. The work is likely to be carried out under minimal supervision within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare vehicle for use | 1.1 | **OHS hazards** in the work area are identified and reported to the supervisor. |
| | | 1.2 | **Routine checks and maintenance** of **vehicle** are conducted prior to use according to manufacturers specifications and **enterprise requirements.** |
| | | 1.3 | Faults or malfunctions are identified and reported for repair according to enterprise requirements. |
| | | 1.4 | Loads are secured according to safe operational specifications, OHS, legislative and enterprise requirements. |
| 2 | Drive vehicle | 2.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS and enterprise requirements. |
| | | 2.2 | Vehicle is driven in a **safe and controlled manner** and monitored for performance and efficiency. |
| | | 2.3 | Driving hazards are identified, anticipated and controlled through the application of safe and defensive driving techniques. |
| | | 2.4 | **Environmental implications** associated with vehicle operation are recognised and positive enterprise environmental procedures applied where relevant. |

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| 3 | Complete and record vehicle performance | 3.1 | **Shut-down procedures** are conducted according to manufacturers specifications and enterprise requirements. |
| | | 3.2 | Malfunctions, faults, irregular performance or damage to vehicle is detailed and reported according to enterprise requirements. |
| | | 3.3 | Vehicle is cleaned and decontaminated (where necessary), secured and stored according to enterprise and OHS requirements. |
| | | 3.4 | Vehicle operational **reports** are maintained to industry standards according to enterprise requirements. |

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## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What **OHS** requirements may be relevant to this standard? | Safe systems and procedures for:<br>• the safe operation and maintenance of vehicles<br>• checks to ensure loads are secure and within working specifications<br>• hazard and risk control<br>• manual handling including lifting and carrying<br>• the application of emergency/defensive driving techniques<br>• handling, application and storage of hazardous substances<br>• outdoor work including protection from solar radiation, dust and noise<br>• the appropriate use, maintenance and storage of personal protective equipment<br>• passengers only carried when there is a seat approved by the manufacturer. |
| What **hazards** may be associated with the operation of vehicles? | Hazards may include exposure to loud noise and fumes, hazardous substances (fuel, oils), solar radiation and organic and other dusts. It may also include ergonomic hazards associated with posture and mechanical vibration. Other hazards may include bystanders, livestock and wildlife, difficult terrain and varying gradients, broken ground, potholes, ditches, gullies, embankments, obstacles, adverse weather conditions, electricity, overhead hazards including powerlines, loose clothing, speed and fatigue, load shifts, mechanical malfunctions, exposed moving parts including hydraulics, run over by vehicle, crushed by roll over, loads being carried, and other machinery. |

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| What **routine checks and maintenance** might be carried out prior to operation? | This may include cabin drills, pre-start and safety checks including an assessment of tyres, wheels, controls and cables, lights, safety mirrors, electrics, safety restraints, chain/driveshaft, chassis and suspension. Service and maintenance of cooling system, fuel, oils and lubricants, battery levels; tyre pressure, fan belts, leads, lines, connections, air filters, air conditioning, brakes, clutch, gearbox, steering, lighting and transmission. |
| What **vehicles** might be covered in this standard? | This may include utilities, four wheel drive vehicles, motorcycles (2 and 4 wheel), and light trucks. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, overalls, gloves, protective eyewear, hearing protection, respirator or facemask, and sun protection (sun hat, sunscreen). |
| How might the operation of a vehicle be demonstrated in a **safe and controlled** manner**?** | Appropriate selection and use of controls, features, settings and operational techniques for the terrain and weather conditions without causing damage to machinery, equipment, person, property or environment. |
| What **environmental implications** may be associated with the operation of vehicles? | Negative environmental impacts may result from excessive noise and exhaust emissions, the unsafe use and disposal of maintenance debris (oil containers, chemical residues) and hazardous substances (fuel, oils). High traffic activity, particularly the repeated use of tracks, may negatively impact in soil disturbance, dust problems and increased run-off flows from unsafe cleaning and servicing activities. |

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|---|---|
| What may be involved in shut **down procedures** for vehicles? | This may include turning the engine off, safe dismounting and securing the vehicle. It may also include parking away from hazards, maintaining a clear thoroughfare, refuelling and cleaning the vehicle of soil, plant and animal material. |
| What vehicle **reports** may be maintained? | This may include routine checks and maintenance, scheduled maintenance activities, mandatory or statutory inspections, faults, malfunctions, and damage details, hazard and incident reports. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in the operation of vehicles requires evidence of the ability to use basic driving skills to drive effectively, with or without loads, in different terrain, weather conditions and emergency situations, carry out routine checks and maintenance, and record performance details. Evidence must be demonstrated with regard to safe workplace and positive environmental practices associated with vehicle operation. The skills and knowledge required to operate vehicles must be **transferable** to a different work environment. For example, this could include different vehicles, conditions and workplace situations.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Components, controls and features of vehicles and their functions.<br>• Operating principles and operating methods.<br>• Load limits and the principles of weight distribution with regard to load shifting and vehicle movement.<br>• Effects of adverse weather and terrain conditions on the operation of vehicles.<br>• OHS legislative requirements and Codes of Practice.<br>• Environmental Codes of Practice with regard to the operation of vehicles.<br>• Relevant State/Territory legislation and regulations with regard to licensing, road and traffic requirements. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Steer, manoeuvre and position vehicles in a smooth and controlled manner in on and off-road conditions.<br>• Demonstrate safe and environmentally responsible workplace practices.<br>• Obtain relevant licences and permits.<br>• Demonstrate emergency procedures and safe driving techniques.<br>• Read and comprehend operator manuals.<br>• Effectively communicate faults, malfunctions and workplace hazards.<br>• Interpret and apply task instructions, report and maintain operational records. |

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## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Information with regard to hazards and unsafe work practices associated with vehicle operation may be reported to the supervisor and work team. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to vehicle performance, faults and maintenance carried out may be detailed and recorded for reference and organised by reports. |
| 3. How are **activities planned and organised (1)**? | Maintenance and repairs may be planned and coordinated around work schedules or sequenced as required. |
| 4. How can **team work (1)** be applied? | Team work may be applied in the application of methods and procedures to complete maintenance procedures and complete records. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematics may be applied in the calculation and measurement of load and weight, servicing requirements, and distance and fuel consumption. |
| 6. How can **problem-solving skills (2)** be applied? | Breakdown, faults or malfunctions will require arrangements for repair or replacement to achieve work schedules. |
| 7. How can the **use of technology (1)** be applied? | To communicate, measure and record information with regard to maintenance, usage and performance of vehicle. |

## Are there other competency standards that could be assessed with this one?

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC2307A Operate machinery and equipment

This competency standard covers the maintenance and operation of machinery and equipment. A practical application of skills and knowledge is required to carry out pre-operational checks, calibrate equipment, report faults and maintain operational records. In addition, an awareness of workplace safety and positive environmental practices associated with machinery and equipment operation is essential. This work is likely to be carried out under routine supervision within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare machinery and equipment for use | 1.1 | **Machinery and equipment** is selected appropriate to job requirements and confirmed against a **work plan.** |
| | | 1.2 | Routine **pre-operational checks** of machinery and equipment are carried out to manufacturers specifications and **enterprise requirements.** |
| | | 1.3 | Equipment is securely attached and calibrated for operation to manufacturers specifications. |
| | | 1.4 | Faulty machinery and equipment is identified, safety tagged, and reported to supervisor according to enterprise requirements. |
| | | 1.5 | **OHS hazards** in the workplace are identified, risk assessed and reported according to enterprise requirements. |
| 2 | Operate machinery and equipment | 2.1 | Machinery and equipment is operated in a **safe and controlled** manner, and monitored for performance and efficiency. |
| | | 2.2 | Risks to self, others and the environment are recognised and minimised according to enterprise and OHS requirements. |
| | | 2.3 | Suitable personal protective clothing and equipment is selected, used, maintained and stored according to OHS requirements. |

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| | | 2.4 | **Environmental implications** associated with machinery operation are identified, assessed and reported to the supervisor. |
| 3 | Check and complete machinery and equipment operation | 3.1 | Machinery and equipment **shut-down** procedures are carried out to manufacturers specifications and enterprise requirements. |
| | | 3.2 | Machinery and equipment operational records are maintained according to enterprise requirements. |
| | | 3.3 | Machinery and equipment damage, malfunctions or irregular performance are recorded and/or reported according to enterprise requirements. |
| | | 3.4 | Machinery and equipment is cleaned, secured and stored according to manufacturers specifications and enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

| | |
|---|---|
| What range of **machinery** and **equipment** may be applicable to this standard? | Hydraulic equipment, stationary engines, spraying equipment, stump grinders, mulchers and chippers equipment, powered trailer and three point linkage equipment. Excludes chainsaws, tractors, vehicles and earth moving equipment. |
| What may be included in a **work plan?** | Pre-operational and safety checks, routine maintenance procedures, designated job tasks, equipment, resources and materials for use, supervisors instructions, timeframe for work completion and reporting requirements. |
| What may be involved in routine **pre-operational checks** of machinery and equipment? | Pre-start and safety checks including the service and maintenance of cooling system.<br>Checking fuel, oils and lubricants, electrolyte levels, wheels, tyre pressure, fan belts, leads, lines, connections, air filters, brakes, clutch, gearbox, steering, lighting, and transmission. |

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| | Inspection of safety guards, PTO stubs and shafts, and hitch and towing points. |
| | Checking and confirming equipment calibration settings and operating methods for turbo-charged engines.<br>Observing and monitoring noise levels for correct operation.<br>Preparation of independently powered tools may include cleaning, priming, tightening, basic repairs and adjustments.<br>Identify and segregate unsafe or faulty equipment for repair or replacement. |
| What **enterprise requirements** may apply to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), OHS procedures, supervisors oral or written instructions, work and routine maintenance plans. |
| What **OHS** requirements may be relevant to this standard? | Systems and procedures for:<br>• the safe operation and maintenance, machinery and equipment including hydraulics, and guarding of exposed moving parts.<br>• hazard identification, assessment and reporting.<br>• emergency operating and defensive driving procedures.<br>• ensuring working loads are secure and within working specifications.<br>• safe lifting, carrying and handling.<br>• appropriate use, maintenance and storage of personal protective equipment.<br>• outdoor work including protection from solar radiation.<br>• passengers only been carried where there is a seat provided by manufacturer. |

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| | • protection of people in the workplace.<br>• protection from hazardous noise, mechanical vibration, and organic and other dusts. |
| What OHS **hazards** may be encountered in the workplace? | This may include exposure to loud noise and fumes, solar radiation, dust, ergonomic hazards associated with posture and vibration, hazardous substances (fuel, oils, fertiliser), oil and grease spills. It may also include the presence of bystanders, livestock and wildlife, difficult terrain and varying gradients, potholes, ditches, gullies, embankments, obstacles (rocks, logs, fences, debris, buildings), extreme weather conditions, electricity, overhead powerlines, mechanical malfunctions and exposed moving parts, and other machinery including hydraulics. |
| How might **safe and controlled** operation of machinery and equipment be demonstrated**?** | This may include:<br>• Appropriate selection and use of machinery and equipment.<br>• Using operational techniques for the specific terrain (on and off-road environments) and weather conditions.<br>• Maintaining working loads within specifications including ensuring hitch-points are operated at the correct height.. |
| What **personal protective clothing and equipment** may be relevant to this standard? | Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, respirator or facemask, and sun protection (sun hat, sunscreen). |
| What **environmental implications** may be associated with the operation of machinery and equipment? | Negative environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oils containers, chemical residues), and hazardous substances (fuel, fertiliser). Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities, soil disturbance and dust problems from high speed and frequent traffic (including irrigation equipment). |

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| What procedures may be included in the **shut-down** of machinery and equipment? | Safe dismount procedures (including turning engine off), maintaining a clear thoroughfare, parking away from hazards, securing, engaging handbrake, removing keys, refuelling and cleaning. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in the operation of machinery and equipment requires evidence of the ability to select and utilise various features and controls of a range of machinery and equipment to carry out tasks. It involves the ability to carry out work and maintenance plans, determine appropriate operating methods, carry out routine maintenance and basic repairs, report faults and workplace hazards, monitor operation, and maintain records. Evidence must also be demonstrated in safe workplace and environmentally responsible practices. The skills and knowledge required to operate machinery and equipment must be **transferable** to a different work environment. For example, this could include different machinery and equipment, workplaces and conditions of use.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Manufacturers specifications for servicing of machinery and equipment.<br>• Operating principles and operating methods for machinery and equipment.<br>• Principles of weight distribution with regard to load shifting and machinery movement.<br>• Procedures for cleaning, securing and storing machinery, equipment and materials.<br>• Potential risks and hazards associated with the operation of machinery and equipment.<br>• Legislation, regulations and Codes of Practice with regard to workplace OHS, and the use and control of hazardous substances.<br>• Relevant State/Territory legislation, regulations and Codes of Practice with regard to licensing, |

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| | roads and traffic requirements.<br>• Environmental impacts and minimisation measures associated with the operation of machinery and equipment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Operate machinery and equipment to industry standards.<br>• Demonstrate safe and environmentally responsible workplace practices.<br>• Read and interpret manufacturers specifications, work and maintenance plans, and Material Safety Data Sheets.<br>• Interpret and apply instructions, communicate with work team and supervisor, record and report equipment faults, workplace hazards, and accidents.<br>• Measure and calculate volumes, consumption and servicing requirements. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Information and ideas with regard to machinery and equipment, safety procedures and their application may be discussed with colleagues and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to the performance and efficiency of machinery and equipment may be observed and recorded for analysis and organised by reports. |

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| 3. How are **activities planned and organised (1)**? | Activities involving maintenance and repairs to machinery and equipment may be planned and coordinated around work schedules or sequenced as required. |
| 4. How can **team work (1)** be applied? | Team work may be applied in methods and procedures to complete maintenance and job functions to achieve work plan requirements. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematics may be applied in the calculation and measurement of load weights, distance, consumption and oil and fuel requirements. |
| 6. How can **problem-solving skills (1)** be applied? | Machinery and equipment breakdown, faults or malfunctions will need to be arranged for repair or replacement to achieve work plan requirements. |
| 7. How can the **use of technology (1)** be applied? | To communicate, measure and record information with regard to maintenance, usage and performance of machinery and equipment. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC2309A Operate tractors

This competency standard covers the operation of tractors with or without attached equipment. It requires the application of skills to safely utilise the various components and controls of tractors, check and confirm operational status, and set and secure equipment for operation. It also requires knowledge of the distinguishing characteristics of individual tractors including rated power, steering systems, and operational complexities. In addition, competence in tractor operation requires an awareness of licensing and legislative requirements, duty of care to self, others and the environment. The work in this standard is likely to be carried out under some supervision with regular checking within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare tractor for operation | 1.1 | **OHS hazards** in the work area are identified, risk assessed and reported to the supervisor. |
| | | 1.2 | **Routine checks of tractors** are conducted prior to use according to manufacturers specifications and **enterprise requirements.** |
| | | 1.3 | **Attached equipment** is identified and selected appropriate to work requirements, checked for safety and set for operation. |
| | | 1.4 | Tractor and attached equipment faults or malfunctions are identified and reported for repair according to enterprise requirements. |
| 2 | Operate tractor | 2.1 | **Risks** to self, others and the environment are recognised and avoided according to OHS and enterprise requirements. |
| | | 2.2 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS and enterprise requirements. |
| | | 2.3 | Tractor is operated in a **safe and controlled manner** and monitored for performance and efficiency. |
| | | 2.4 | Hazards are identified, anticipated and controlled through the application of safe |

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| | | | and defensive driving techniques. |
| | | 2.5 | **Environmental implications** associated with tractor operation are recognised and positive enterprise environmental procedures applied where relevant. |
| 3 | Complete and check tractor operation | 3.1 | **Shut-down procedures** are conducted according to manufacturers specifications and enterprise requirements. |
| | | 3.2 | Malfunctions, faults, irregular performance or damage to tractor and attached equipment is detailed and reported according to enterprise requirements. |
| | | 3.3 | Tractor and attached equipment is cleaned and decontaminated where necessary, secured and stored according to enterprise and OHS requirements. |
| | | 3.4 | Tractor operational **reports** are maintained to industry standards according to enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

What **OHS** requirements may be relevant to this standard?

Safe systems and procedures for:

- the safe operation of tractors and attached equipment including the fitting of guards and shields
- hazard and risk control
- safe mounting and dismounting
- manual handling including lifting and carrying
- the application of emergency/defensive driving techniques
- handling, application and storage of hazardous substances
- outdoor work including protection from solar radiation, dust and noise

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| | • the appropriate use, maintenance and storage of personal protective equipment<br>• roll over protection secured if required<br>• wearing a seatbelt<br>• passengers only been carried when there is a seat approved by manufacturer. |
| What **hazards** may be associated with the operation of tractors? | Hazards may include exposure to loud noise and fumes, hazardous substances (fuel, oils), solar radiation and organic and other dusts. It may also include ergonomic hazards associated with posture and mechanical vibration. Other hazards may include bystanders, livestock and wildlife, difficult terrain and varying gradients, broken ground, potholes, ditches, gullies, embankments, obstacles, adverse weather conditions, electricity, overhead hazards including powerlines, loose clothing, speed and fatigue, load shifts, mechanical malfunctions, exposed moving parts including hydraulics, run over by tractor, crushed by roll-over, and other machinery. |
| What **routine checks** might be carried out prior to operation? | This may include cabin drills, pre-start and safety checks including an assessment of tyres, wheels, controls and cables, lights, safety mirrors, electrics, safety restraints, chain/driveshaft, chassis, seatbelts, suspension, power take-off equipment and guards, roll-over protection, spark arresters, pneumatic and hydraulic systems. It may also include checking of cooling system, fuel, oils and lubricants, battery levels; tyre pressure, fan belts, leads, lines, connections, air filters, air conditioning, brakes, clutch, gearbox, steering, lighting and transmission. Inspection of hitch and towing points. |

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| What operational characteristics may vary in **tractors**? | Tractors may be two wheel drive, four wheel drive, front wheel assist, articulated tractors including scrapers, track or crawler driven. Steering systems may include conventional front-wheel steering, all wheel steering and articulated. Variational characteristics also include rated horsepower and complexities of operations and controls. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions. |
| What range of operations may be conducted using **attached equipment**? | Tractors may be set up and operated for blade, belt pulley, drawbar, front-end loader, power-take-off, remote hydraulics, linkage mounted equipment. |
| What **risks** may be associated with the operation of tractors? | Tractor rollover, which may be caused by traversing a steep slope or cornering too sharply at speed. Tractor back flip which may be caused by driving off in low gear but with high engine speed, rapid acceleration (particularly when driving uphill or pulling a heavy load), attempting to drive forward when the wheels are unable to move forward (bogged), rapid engagement of the clutch of the tractor. Power-take-off entanglement (loose clothing). |
| What **personal protective equipment** may be relevant to this standard? | Boots with non-slip soles, overalls, seatbelts, gloves, protective eyewear, hearing protection, respirator or facemask, and sun protection (sun hat, sunscreen). |
| How might the operation of a tractor be demonstrated in a **safe and controlled** manner**?** | Appropriate selection and use of tractor controls, features, settings and operational techniques for the terrain and all weather conditions without causing damage to tractor, equipment, person, property or environment. |

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| What **environmental implications** may be associated with the operation of tractors? | Negative environmental impacts may result from excessive noise and exhaust emissions, the unsafe use and disposal of maintenance debris (oil containers, chemical residues), and hazardous substances (fuel, oils). High traffic activity, particularly the repeated use of tracks, may negatively impact in soil disturbance, dust problems and increased run-off flows from unsafe cleaning and servicing activities. |
| What may be involved in shut **down procedures** for tractors? | This may include turning the engine off, safe dismounting and securing the tractor, and ensuring hydraulic equipment is lowered to a safe position. It may also include parking away from hazards, maintaining a clear thoroughfare, refuelling and cleaning the tractor, engaging handbrake and removing keys. |
| What **reports** may be relevant to this standard? | This may include routine checks and maintenance, scheduled maintenance activities, mandatory or statutory inspections, log books, faults, malfunctions and damage details, and hazard and incident reports. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

### What evidence is required to demonstrate competence for this standard as a whole?

Competence in this standard requires evidence of the ability to safely operate tractors with or without attached equipment relative to operating conditions. This includes the application of skills to match and attach equipment appropriate to work requirements, secure loads within working specifications, perform routine pre-operational checks, recognise and control hazards and risks, demonstrate emergency procedures, and monitor and maintain operational records. Evidence must also be demonstrated in safe workplace and positive environmental practices. The skills and knowledge required to operate tractors must be **transferable** to a different work environment. For example, this could include different tractors, terrain and weather conditions.

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**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- Tractor components, controls and features and operational functions.
- Tractor steering systems and features.
- Attached equipment, features and operational functions and procedures.
- Operating principles and operating methods.
- Load limits and the principles of weight distribution with regard to load shifting and tractor movement.
- Effects of adverse weather and difficult terrain conditions on tractor operation.
- Environmental Codes of Practice with regard to machinery operation.
- OHS legislative requirements, hazard identification and risk assessment.
- Relevant legislation with regard to machinery operation and licensing requirements.
- OHS Codes of Practice including the use and control of hazardous substances.

**What specific skills are needed to achieve the performance criteria?**

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- Steer, manoeuvre and position tractor in a smooth and controlled manner.
- Safely and effectively operate tractors in adverse weather and difficult terrain conditions.
- Demonstrate safe and environmentally responsible workplace practices.
- Interpret manufacturers specifications, work and maintenance plans, and MSDS.
- Effectively communicate faults and hazards, interpret and apply task instructions, report and maintain operational records.
- Calculate and measure distance, volumes and

weights.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Information with regard to hazards and unsafe work practices associated with the operation of tractors may be reported to the supervisor and work team. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to tractor performance, faults and maintenance requirements may be detailed and recorded for reference and organised by reports. |
| 3. How are **activities planned and organised (1)**? | Tractor operation may be planned and coordinated around work schedules. |
| 4. How can **team work (1)** be applied? | Team work may be applied in the application of methods and procedures to complete operating procedures and maintain records. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematics may be applied in the calculation and measurement of load and weight, servicing requirements, and distance and fuel consumption. |
| 6. How can **problem-solving skills (1)** be applied? | Breakdown, faults or malfunctions will require arrangements for repair or replacement to achieve work schedules. |
| 7. How can the **use of technology (1)** be applied? | To communicate, measure and record information with regard to maintenance, usage and performance of tractor. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

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There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC2706A Apply chemicals under supervision

This competency standard covers the process of applying chemicals and biological agents for the control of weeds, pests and diseases using workplace specific application equipment. The work functions in this standard will be carried out under supervision. A thorough knowledge and the application of safety procedures and regulations when using chemicals is required.

**NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Follow instructions to check and maintain application and personal protective equipment | 1.1 | Pre and post operational checks and maintenance on **application equipment** are carried out according to manufacturers specifications and enterprise procedures. |
| | | 1.2 | **Application and personal protective equipment** are prepared and adjusted for use appropriate to the situation and in accordance with OHS requirements. |
| | | 1.3 | Instructions are followed to identify and maintain damaged, non-functioning or worn equipment. |
| | | 1.4 | OHS hazards are identified and reported to the supervisor. |
| 2 | Use application and personal protective equipment | 2.1 | **Chemical** label is interpreted. |
| | | 2.2 | Application and personal protective equipment appropriate to the task are recognised and used, maintained and stored according to enterprise procedure and OHS requirements. |
| | | 2.3 | Measurement and decanting of substances comply with directions. |
| | | 2.4 | **Safe working practices** relevant to the situation are followed. |
| | | 2.5 | Procedures in the event of a chemical spill are identified and followed. |

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| 3 | Apply chemicals | 3.1 | **Hazards** are identified and associated risks recognised. |
| | | 3.2 | Requirements for application equipment to accurately and effectively apply the required dose of the chemical to the target are followed. |
| | | 3.3 | Safe working practices relevant to the situation are followed. |
| 4 | Follow instructions to empty and clean equipment and containers according to directions | 4.1 | Instructions for clean-up are identified. |
| | | 4.2 | Equipment and clean up methods using appropriate **tools** are followed. |
| | | 4.3 | Instructions for disposal of containers and unused chemical or biological agents are identified. |
| 5 | Complete chemical records | 5.1 | Chemical inventory is recorded as instructed and as required by regulations. |
| | | 5.2 | Chemical **application details** are reported as instructed and as required by regulations. |
| 6 | Transport, handle and store chemicals according to instructions and legislative requirements | 6.1 | Transport, handling and storage requirements for chemicals used are recognised and followed. |
| | | 6.2 | Requirements for storage of chemicals at the workplace are recognised and followed. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

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| What **pre and post operational checks** might be relevant to this standard? | Checks may be made to weather conditions (e.g., wind), nozzles, hoses, regulators/gauges, respirator cartridges, drench, and protective clothing and equipment. |
| What types of **application equipment** are relevant to this standard? | Knapsacks or hand held pneumatic sprayers, drench guns, spot on applicators, syringes, or other equipment relevant to the workplace. |

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| What **personal protective equipment** might be relevant to this standard? | Personal equipment may include boots, overalls, chemical resistant gloves, aprons, face shields, respirators or hats. |
| Which **chemicals** may be relevant to this standard? | Chemicals may include herbicides, insecticides, fungicides, algaecides, growth regulators, growth promotants, bio-agents or vaccines. Excludes application of S6 and S7 chemicals. |
| What **safe working practices** may be relevant to this standard? | Safe working practices may include procedures for handling, transporting and storing chemicals, selecting and using personal protective clothing and equipment, safe operation of machinery and equipment, safe procedures for applying chemicals and following manufacturers instructions. |
| What **legislation or regulations** may be relevant to this standard? | Legislation may include Pesticides Acts, Occupational Health and Safety Acts and associated Hazardous Substances Regulations/ Codes of Practice, Dangerous Goods Acts, Poisons Schedule or Protection of the Environment Acts. |
| What **procedures** may be followed in the event of a spill? | May include procedures according to the label, Material Safety Data Sheets (MSDSs) or legislation. |
| What **hazards** may be relevant to this standard? | Hazards will be listed on labels and the MSDSs for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage or residues in food or feedstuffs. |
| What **tools** may be relevant to this standard? | Tools may include hand tools, measuring jugs and cylinders, scales, syphoning equipment, drum rinse, and batching tank. |
| What **application details** may be recorded as part of this standard? | Details such as time, date, quantity and type of chemical, weather, application equipment, host and pest, accidents or dangerous occurrences may be recorded or must be recorded where required by legislation. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

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# Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Overall competence in this standard requires evidence that a person using chemicals in the workplace can use the correct equipment, apply the chemical correctly, record application, identify safety hazards and how to avoid them, and interpret and follow directions. The ability to use chemicals in one workplace should be **transferable** to another workplace. For example, if a chemical is applied under close supervision on a property growing grain crops, it should be evident that a chemical could be applied on a property where fruit is grown following induction to the new workplace.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Environmental effects of selected chemicals and how to minimise damaging effects of chemicals.<br>• Different broad chemical types, e.g., insecticides, herbicides and fungicides and their mode of action symbols on the label.<br>• Principles of Integrated Pest Management.<br>• Paths of entry of poisons into the body and methods of limiting exposure.<br>• Methods of minimising risk during application.<br>• Personal protective equipment and how, when and why it should be used and stored.<br>• Maintenance of personal protective equipment.<br>• Relevant State or territory legislation, regulations and Codes of Practices with regard to hazardous substances or the use of chemicals.<br>• Occupational Health and Safety concerning personal safety and safety of others in the workplace.<br>• Use of chemicals as one tool of pest management.<br>• Possible effects on health of bystanders/public in addition to applicators. |

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| | • Weather conditions and means of assessing them in line with risks, and recognising when they become unsuitable for application to continue.<br>• Correct wearing/fit of personal protective equipment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Work using a variety of chemical application tools and pieces of equipment that are suitable for the particular application task using safe and environmentally responsible work practices.<br>• Accurately interpret labels, record relevant information and measure application amounts<br>• Respond to emergencies and apply first aid in the event of pesticide poisoning. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Information about chemicals and how they will be applied and recorded may be communicated to work colleagues or the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information may be collected and analysed from chemical labels, MSDSs, operators manuals or from Codes of Practice and advisory materials outlining regulations relevant to chemical use. |
| 3. How are **activities planned and organised (1)**? | Recognising and using equipment, application and cleaning up of chemicals will require coordination of activities. |

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| 4. How can **team work (1)** be applied? | Applying chemicals with others in the workplace or in conjunction with other team functions. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Correctly measuring volume of chemical to apply, recording information and working out time periods before work can continue in the area. |
| 6. How can **problem-solving skills (1)** be applied? | Taking action concerning faulty equipment may require problem solving. |
| 7. How can the **use of technology (1)** be applied? | Recording information may require technology to be used. |

**What are the special assessment conditions for this competency standard?**

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals the assessor must meet the requirements of the issuing body. This may include:

1. Accreditation with that issuing body
2. Maintenance of current competency in this and the following standards:
   - RTC3704A - Prepare and apply chemicals
   - RTC3705A - Transport, handle and store chemicals
   - RTC4702A - Minimise risks in the use of chemicals
   - RTC4703A - Plan and implement a chemical use program
3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC2401A Treat weeds

This competency standard covers the process of treating weeds using cultural, biological and chemical methods. Treatment will follow strict work instructions and will be under supervision. Competency involves the application of knowledge and skills in recognising common weeds, monitoring and recording the severity of the weed problem, applying a range of treatments, and recording relevant information.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare to treat weeds | 1.1 | Weeds which impact on commercial crops, gardens and turf, and **natural areas** are recognised by common name. |
| | | 1.2 | **Details** of the weed occurrence are recorded and reported to the supervisor. |
| | | 1.3 | **Treatment methods** are selected in consultation with the supervisor. |
| | | 1.4 | **Equipment** is selected and prepared for use according to enterprise guidelines and manufacturers specifications. |
| | | 1.5 | **OHS hazards** are identified, **risks** assessed and reported to the supervisor. |
| 2 | Treat weed | 2.1 | Suitable **personal protective equipment** (PPE) is selected, used, maintained and stored. |
| | | 2.2 | Treatments are prepared according to supervisor's instructions and manufacturers guidelines. |
| | | 2.3 | Treatments are applied in such a way that non-target damage is minimised. |
| | | 2.4 | Treatments are applied according to **OHS** and **regulatory requirements**. |
| 3 | Carry out post treatment operations | 3.1 | Equipment is shut down and cleaned with full consideration of **environmental impacts** and OHS requirements. |
| | | 3.2 | Treatment waste is disposed of causing minimal environmental damage. |

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| 3.3 | **Records** are maintained according to enterprise guidelines. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work contexts.

| | |
|---|---|
| What natural areas might be included | Natural areas might include intertidal zones, marshes, mud flats, land adjacent to marine environment, water catchment zones. |
| What type of **details** about the weed might be required? | Details might include location of weeds, area covered by the weed, possibility of off target damage, and potential threats that the weed may present to surrounding areas. |
| What **treatments** might be applied? | Treatments may include hand weeding, herbicides, release of biological agents, cultivation, slashing, cutting, burning and ripping. |
| What **equipment** is appropriate for treatment application? | Equipment may include backpack sprayers, spray tanks, fertiliser spreaders, ladders, tractor drawn cultivation equipment, rippers, weedicide applicators, handsaws, chainsaws and brushcutters. |
| What **OHS hazards** might apply to this standard? | OHS hazards may include use of hazardous chemicals, use of tractors, machinery, and vessels, solar radiation, manual handling, falls, tripping and noise. |
| What or who may be at **risk** from OHS hazards? | Hazard may cause risk to workers, equipment, people and animals external to the workplace (such as members of the public, wildlife, pets, bees, fish, birds), and the environment. |
| What **personal protective equipment (PPE)** may be required to apply treatments? | Personal protective equipment may include hat, rubber boots, chemical resistant overalls, face protection, hearing protection, gloves, goggles, respirator or facemask, sunscreen lotion, personal flotation device. |

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| What **OHS requirements** might apply to this standard? | OHS requirements may include identifying hazards, assessing and reporting risks, safety procedures involved in chemical handling and use, weather conditions, safety procedures for protecting others, cleaning, maintaining and storing tools and equipment, appropriate use, maintenance and storage of personal protective equipment including sun protection, drinking to avoid dehydration, safe operation of tools and equipment, personal hygiene and reporting problems to supervisors. |
| What **regulatory requirements** might apply to this standard? | Regulatory requirements may include the use and disposal of chemicals, record keeping, transport of chemicals, access to area, use of chainsaws, reporting accidents and dangerous goods. |
| What environmental impacts may apply to this standard? | Environmental impacts may include leaching and contamination of the water table, soil contamination, spray drift, damage to off target organisms, contaminated produce, surface run off, changes in soil structure. |
| What records need to be kept when treating weeds? | Records may include accident and dangerous occurrence reports, name of operator, treatments applied, rate, date, settings of equipment, weed numbers, numbers of beneficial organisms. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in treating weeds requires evidence that the common weeds have been recognised and appropriately treated. The skills and knowledge required to treat weeds must be **transferable** to a different work environment. For example, this could include different weed species, locations and treatment techniques.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Recognition of common weeds for a particular enterprise/situation.<br>• Weed growth characteristics.<br>• Different types of control measures, treatments and their principles.<br>• Modes of action of different chemicals.<br>• Equipment capability and limitations.<br>• Legislation relation to the use of chemicals for weed control.<br>• OHS responsibilities of employees.<br>• OHS legislative requirements and associated hazardous substances regulations and Codes of Practice.<br>• Correct wearing/fit of personal protective equipment.<br>• Environmental considerations when using chemicals for weed control. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Read and interpret chemical labels, Material Safety Data Sheets (MSDSs), manufacturers specifications for setting up equipment, and maintain spray records.<br>• Prepare to treat weeds.<br>• Apply weed treatments.<br>• Carry out post treatment operations. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information relating to applying weed treatments should be discussed with other members of the work team and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information will be collected by inspecting the weed and the information gained will be recorded and discussed with the work team and supervisor. Enterprise work procedures and weed control programs should be consulted, interpreted and applied with clarification from the supervisor where necessary. |
| 3. How are **activities planned and organised (1)**? | Equipment, materials and work procedures for applying treatments will need to be arranged before and between work periods, and there may be some responsibility for coordinating work with others. |
| 4. How can **team work (1)** be applied? | The application of treatments may involve working with other members of a team to complete the program and ensuring other activities are scheduled around the application of weed treatments. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematical ideas in relation to calculating rates, and areas, will be required. |
| 6. How can **problem-solving skills (1)** be applied? | Problems solving may be demonstrated in cases of machinery malfunctions or chemical spillage. |
| 7. How can the **use of technology (1)** be applied? | Technology may be applied in the preparation, use and maintenance of spray equipment. |

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**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is critical information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC2404A Treat plant pests, diseases and disorders

This competency standard covers the process of treating plant pests, diseases and disorders using cultural, biological and chemical methods. Treatment will follow strict work instructions and will be under supervision. Competency involves the application of knowledge and skills in recognising common plant pests, diseases and disorders, monitoring and recording the severity of the plant pest or disease problem, applying a range of treatments, and recording relevant information.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare to treat plant pests, diseases and disorders | 1.1 | Plant pests, diseases and disorders which impact on commercial crops, gardens and turf, and natural areas are recognised by common name. |
| | | 1.2 | **Details** of the plant pest, disease and disorder occurrence are recorded and reported to the supervisor. |
| | | 1.3 | **Treatment methods** are selected in consultation with the supervisor. |
| | | 1.4 | **Equipment** is selected and prepared for use according to enterprise guidelines and manufacturers specifications. |
| | | 1.5 | **OHS hazards** are identified, **risks** assessed and reported to the supervisor. |
| 2 | Apply treatments to plant pests, diseases and disorders | 2.1 | Suitable **personal protective equipment** (PPE) is selected, used, maintained and stored. |
| | | 2.2 | Treatments are prepared according to supervisor's instructions and manufacturers guidelines. |
| | | 2.3 | Treatments are applied in such a way that non-target damage is minimised. |
| | | 2.4 | Treatments are applied according to **OHS** and **regulatory requirements**. |
| 3 | Carry out post treatment operations | 3.1 | Equipment is shut down and cleaned with full consideration of **environmental impacts.** |
| | | 3.2 | Treatment waste is disposed of causing |

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| | minimal environmental damage. |
| 3.3 | **Records** are maintained according to enterprise guidelines. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work contexts.

| | |
|---|---|
| What may be included under plant pests, diseases and disorders? | Plant pests and diseases may include chewing, sucking and boring invertebrates, nematode, fungi, viruses, and bacteria. Disorders include toxic soil, air and water. This unit excludes vertebrate pests, nutrient deficiencies and extreme environmental conditions. |
| What type of details about the plant pest or disease might be required? | Details might include location and occurrence of plant pests, diseases and disorders, possibility of off target damage and potential threats that the plant pest or disease may present to surrounding areas. |
| What treatments might be applied? | Treatments may include use of fertilisers, foliar nutrients, insecticides, fungicides, dips, release of biological agents, pheromone traps, baits, hormones, cultivation, slashing, cutting, burning and ripping. |
| What equipment is appropriate for treatment application? | Equipment may include backpack sprayers, spray tanks, fertiliser spreaders, ladders, rippers, pesticide applicators and handsaws. |
| What OHS hazards might apply to this standard? | OHS hazards may include use of hazardous chemicals, use of tractors machinery and vessels, solar radiation, and working from ladders. |
| What or who may be at risk from OHS hazards? | Hazard may cause risk to workers, equipment, people and animals external to the workplace (such as members of the public, wildlife, pets, bees, fish, birds), and the environment. |
| What personal protective equipment (PPE) may be required to apply treatments? | Personal protective equipment may include hat, rubber boots, chemical resistant overalls, gloves, goggles, respirator or facemask, sunscreen lotion, personal flotation devices. |

| | |
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| What OHS requirements might apply to this standard? | OHS requirements may include identifying hazards, assessing and reporting risks, cleaning, maintaining and storing tools and equipment, appropriate use of personal protective equipment including sun protection and drinking to avoid dehydration, safe operation of tools and equipment, personal hygiene and reporting problems to supervisors, appropriate use, maintenance and storage of personal protective equipment, safety procedures in chemical handling and use, safety procedures for the protection of others. |
| What regulatory requirements might apply to this standard? | Regulatory requirements may include the use and disposal of chemicals, record keeping, transport of chemicals, and access to area. |
| What **environmental impacts** may apply to this standard? | Environmental impacts may include leaching and contamination of the water table, soil contamination, spray drift, damage to off target organisms, contaminated produce, surface run off, changes in soil structure. |
| What **records** need to be kept when treating plant pests, diseases and disorders? | Records may include name of operator, treatments applied, rate, date, settings of equipment, plant pest's numbers, numbers of beneficial organisms. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in treating plant pests, diseases and disorders requires evidence that the common plant pests, diseases and disorders have been recognised and appropriately treated. The skills and knowledge required to treat plant pests, diseases and disorders must be **transferable** to a different work environment. For example, this could include different plant pest and diseases, locations and treatment techniques.

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| **What specfic knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Recognition of common plant pests, diseases and disorders for a particular enterprise/situation.<br>• Different types of control measures and their principles.<br>• Modes of action of different chemicals.<br>• Legislation relation to the use of chemicals for plant pest, disease and disordercontrol.<br>• OHS responsibilities of employees.<br>• Environmental considerations when using chemicals for plant pest, disease and disorder control.<br>• OHS legislative requirements and Codes of Practice.<br>• Correct wearing/fit of personal protective equipment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Read and interpret chemical labels, Material Safety Sata Sheets (MSDSs), manufacturers specifications for setting up equipment, and maintain spray records.<br>• Prepare to treat plant pests and diseases.<br>• Apply plant pest, disease and disorder treatments.<br>• Carry out post treatment operations.<br>• Wear personal protective equipment appropriate to task. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information relating to applying plant pest, disease and disorder treatments should be discussed with other members of the work team and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information will be collected by inspecting the plant pest or disease and the information gained will be recorded and discussed with the work team and supervisor. Enterprise work procedures and control programs should be consulted, interpreted and applied with clarification from the supervisor where necessary. |
| 3. How are **activities planned and organised (1)**? | Equipment, materials and work procedures for applying treatments will need to be arranged before and between work periods, and there may be some responsibility for coordinating work with others. |
| 4. How can **team work (1)** be applied? | The application of treatments may involve working with other members of a team to complete the program and ensuring other activities are scheduled around the application of plant pest or disease treatments. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematical ideas in relation to calculating rates, and areas, will be required. |
| 6. How can **problem-solving skills (1)** be applied? | Problems solving may be demonstrated in cases of machinery malfunctions or chemical spillage. |
| 7. How can the **use of technology (1)** be applied? | Technology may be applied in the preparation, use and maintenance of spray |

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equipment.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is critical information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC3206A Erect timber structures and features

This competency standard covers the process of erecting timber structures and features as a component of landscape project works. These structures and features may include fences, pergolas, trellises, lattices, gazebos, small bridges, handrails, boardwalks, steps, decking, sheds, playhouses, screens, and site furniture. The erecting of timber structures and features is likely to be under limited supervision from others with checking only related to overall progress, and is usually done within established industry guidelines. Some discretion and judgement may be required in the selection, assembly and securing of the timber components used in the structure or feature.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Plan and prepare work | 1.1 | Plans and specifications are interpreted and clarified with the supervisor. |
| | | 1.2 | The quantity and quality of materials are checked to ensure they conform to design drawings and specifications. |
| | | 1.3 | **Tools and equipment** are selected and checked for serviceability according to enterprise guidelines. |
| | | 1.4 | **OHS hazards** are identified, risks assessed, and controls implemented**.** |
| | | 1.5 | **Environmental implications** of erecting timber structures are identified and reported to the supervisor. |
| 2 | Prepare the site for the structure | 2.1 | **Services** are identified and located from site plans. |
| | | 2.2 | The position of the structure is marked out according to design drawings and specifications. |
| | | 2.3 | Profiles are established to conform to the tolerances nominated within the design drawings and specifications. |
| | | 2.4 | **Footings** are excavated and prepared according to the type of structure to be erected. |

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| 3 | Prepare and cut **timber components** | 3.1 | Components are **prepared** for assembly to the requirements contained in the design drawings and specifications. |
| | | 3.2 | The length of components and the positions of cuts and joints are marked out with a pencil according to designated specifications in design drawings. |
| | | 3.3 | **Cutting tools** are selected, used and maintained according to manufactures recommendations and **OHS specifications.** |
| | | 3.4 | Components are cut, checked out and drilled accurately in preparation for **joining** and assembly. |
| | | 3.5 | Appropriate personal protective equipment is worn. |
| 4 | Assemble and erect structure | 4.1 | Timber components are assembled into position and **fixed** into place according to design drawings and specifications. |
| | | 4.2 | Remaining components are installed and fixed into position according to design drawings and specifications. |
| | | 4.3 | Structure is **finished off** to ensure all components are secure and complete. |
| | | 4.4 | **Coatings** are applied according to specifications, manufacturers recommendations and OHS guidelines. |
| 5 | Check quality of work and clean up site | 5.1 | Quality of finished works is given a final check to ensure the standard of the finished structure or feature is in accordance with design drawings and specifications. |
| | | 5.2 | Debris is cleaned from structure and site according to enterprise guidelines. |
| | | 5.3 | Waste material is disposed of according to OHS and environmental requirements. |
| | | 5.4 | Unused timber is **stored and stacked** for future re-use according to enterprise guidelines. |

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| | 5.5 Tools and equipment are cleaned and stored according to enterprise guidelines and OHS requirements. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in particular training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What **tools and equipment** are likely to be used when erecting timber structures and features? | Tools and equipment may include levelling equipment, ladders, guy ropes, string lines, tape measures, marking gauges, spades, shovels, crow bars, chisels, hammers, spanners, nails, nail punches, planes, clamps, power tools such as electric drills and saws, handsaws, sanding blocks, paint brushes and putty knives. |
| What **OHS hazards** apply to this standard? | OHS hazards may include manual lifting, use of power tools, use of sharp hand tools, dust, sun exposure, working at heights, falling objects, overhead powerlines, and contact with treated timber. |
| What **environmental implications** are likely to be considered? | Consideration may be given to the impact of soil disturbance and the alteration to water flow during construction, and after the structure or feature has been erected, use and disposable of treated timbers. |
| What **services** are likely to be located on site? | Services may include power, gas, water, stormwater, sewerage or septic connections, phone and optical cables. |
| What types of **footings** are likely to be prepared for timber structures and features? | Footings may be concrete or in some case rammed earth. The depth of footings and timing of footing installation may vary according to the type of structure to be erected. Some structures (e.g., fences) need the post and footing installed at the beginning, others may be supported by bracing during assembly and when complete, the footings are filled. |
| What **timber components** are likely to be included in a timber structure or feature? | Timber components may include beams, rafters, joists, battens, slats, rails and planks. |

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| How is the timber likely to be **prepared** before assembly? | Timber preparation may include planing arising from the identification of knots. |
| What **cutting tools** are likely to be used? | Cutting tools may include handsaws, electric saws and chisels. |
| What **OHS specifications** may be included for the use of power tools? | OHS specifications may include routine pre-start checks such as cleaning air filters, blades, brakes, safety bars, nuts, bolts and screws, and the operating of power tools according to manufacturers recommendations including correct handling, guards, electrical safety, the wearing of protective clothing, regular servicing, and safe storage when not in use. |
| What methods are likely to be used for **joining** timber? | Timber joints may include corner halving, tee halving, bevelled tee halving, stopped halving, cross halving, halved scarf, through dovetail halving and stopped dovetail halving. |
| How can timber components be **fixed** into place? | Timber fixing methods may include galvanised plates, saddles, nails, cup head bolts, coach screws, dyna bolts, timber glues or other fasteners. |
| How can a structure or feature be **finished off** to ensure completeness and security of components? | Finishing off may include the cutting off of overhangs, sanding, and the plugging of holes and any other cosmetic work that may be required. |
| What **coatings** are likely to be applied to timber structures and features? | Coatings may include paint, varnishes and lacquers. |
| How is unused timber likely to be **stored and stacked?** | Storing and stacking may include the use of ground sheets, chocks, waterproof covers and strapping in accordance with safe stacking procedures. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

# Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in erecting timber structures and features requires evidence that the work can be planned and prepared for, that the structure site can be marked out according to design drawings and specifications, and that the structure or feature can then be assembled, erected and finished off according to the required standards. The skills and knowledge required to erect timber structures and features must be **transferable** to a different work environment. For example, this could include different timber structures, timbers, locations, environments and work conditions.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Levelling principles and techniques.<br>• Timber properties and characteristics.<br>• Common timber joints.<br>• Timber fixing methods and product.<br>• Footings and their construction used for timber structures.<br>• OHS requirements associated with erecting structures and features.<br>• Environmental implications associated with excavation and construction activity. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Interpret design drawings and specifications.<br>• Measure and mark lengths of timber accurately.<br>• Join timbers using a variety of recognised methods.<br>• Use some surveyors instruments.<br>• Use hand and power tools according to OHS requirements.<br>• Demonstrate safe working practices. |

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Information regarding timber selection may need to be discussed with suppliers, the client and other members of the work team. |
| 2. How can **information be collected, analysed and organised (2)**? | The information on design drawings, specifications and site plans may need to be collected, analysed and then transferred to site. |
| 3. How are **activities planned and organised (2)**? | Activities on the work site may need to be planned and organised to ensure efficient use of time and resources. |
| 4. How can **team work (2)** be applied? | Team work may be required when assembling and erecting timber structures and features. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical techniques may be applied when calculating lengths of timber and marking out cuts and joints. |
| 6. How can **problem-solving skills (2)** be applied? | Problems may arise if calculations of timber lengths are inaccurate. |
| 7. How can the **use of technology (2)** be applied? | The use of technology may be applied when using levelling equipment to mark out the structure site. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must

have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC3209A Plan and construct conventional fencing

This competency standard covers the functions required to plan and construct conventional fencing. Conventional fencing refers to post and wire/wire netting under tension and can be used for animal control or as a deterrent for people and vehicles. It requires the application of skills and knowledge to identify and incorporate fencing needs and enterprise objectives into an efficient and cost-effective fence. It also requires the ability to match fencing requirements to the property's topography. It requires an awareness of workplace safety and environmental practices associated with maintenance activities. The work in this standard is likely to be carried out under routine supervision within enterprise guidelines.

| Element | | Performance Criteria | |
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| 1 | Determine fencing requirements | 1.1 | **Fencing requirements** are assessed and clarified according to enterprise objectives. |
| | | 1.2 | **Equipment, materials** and labour requirements are determined, and estimated costings are maintained within budgetary constrains. |
| | | 1.3 | **Plan** is prepared giving consideration to siting fences in relation to natural features and proposed uses. |
| | | 1.4 | Legal requirements associated with fencing construction are identified. |
| 2 | Prepare for construction | 2.1 | Proposed fencing is checked and verified against property maps and **work plan.** |
| | | 2.2 | Services, structures and features, which may impact on the fencing work, are identified and incorporated into the fencing plan. |
| | | 2.3 | Tools and fencing equipment (including safety equipment), are arranged and safely and **efficiently** transported to the work site. |
| | | 2.4 | Labour requirements are arranged and confirmed according to **enterprise requirements.** |

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| | | 2.5 | Potential and existing **hazards** in the workplace are risk assessed and minimised according to **OHS** requirements. |
| 3 | Construct conventional fence | 3.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS and enterprise requirements. |
| | | 3.2 | Fence lines are marked out and checked against work plan and property maps. |
| | | 3.3 | **Fence is constructed** according to work plan, OHS and enterprise requirements. |
| | | 3.4 | Gates are attached and appropriately positioned for **correct operation** and function according to work plan. |
| | | 3.5 | All work is carried out safely according to OHS and enterprise requirements. |
| 4 | Complete fencing operations | 4.1 | Work site is **cleared and tidied** and all waste is disposed of in an environmentally responsible manner. |
| | | 4.2 | Tools and fencing equipment are transported safely from the work site and stored according to manufacturers recommendations and enterprise requirements. |
| | | 4.3 | Tools and equipment faults or malfunctions are reported for repair or replacement according to enterprise requirements. |
| | | 4.4 | Relevant information is recorded and maintained according to enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What may be identified in **fencing requirements**? | This may include types of fencing and the purposes for which it is to be used. |

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| What **equipment and materials** may be required for the construction of fences? | This may include post driver, post hole diggers, fencing pliers, wire strainers, wire cutters, wire spinners, shovel, crowbar/rammer, brace and bit, drill, fencing wire might include: plain, barbed, ringlock, netting, posts, droppers, wire, staples, gates, hinges and chains. |
| What information may be included for consideration in a fencing **plan**? | This may include the type of materials required and costs, type of stock/animal/people control required, soils, topography, water, layout of site/land to be fenced, machinery use and access. |
| What information may be included in a **work plan?** | This may include designated work tasks, allocated tools and equipment, materials requirements, procedures for pre-start and safety checks of tools and equipment, timeframe for work completion, managers instructions and reporting requirements. |
| What may be involved in the **efficient** transport of tools and equipment? | This may involve methods and procedures to minimise possible damage or loss to tools, equipment and personnel. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions. |
| What **hazards** may be relevant to this standard? | This may include exposure to hazardous noise, dust solar radiation and adverse weather conditions, PTO shafts, manual handling, trip or uneven surfaces, splinters, insect, spider and snakebites, and wire breakage when straining. It may also include electricity associated with powered tools. |
| What **OHS** requirements may be applicable to this standard? | Safe systems and procedures for:<br>• the use of fencing tools and equipment<br>• the operation of vehicles<br>• hazard and risk control<br>• lifting, carrying and handling techniques<br>• manual handling especially when handling posts and coils of wire and using a rammer |

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| | • the use, maintenance and storage of personal protective equipment<br>• outdoor work including protection from solar radiation<br>• protection from dusts<br>• the administration of first aid. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, overalls, gloves, eye protection, hearing protection, respirator or face mask, and sun protection. |
| What may be involved in the **construction of a fence**? | This may include constructing end assemblies, positioning marker wire, installing and securing intermediate posts along the marker wire, attaching wires to posts which are then joined, strained and fixed using correct knots. It may also include laying out and securing droppers to the wires. |
| When might gates be determined as **operating correctly**? | Gates are attached to a gate post, hung, swung and secured for closure. |
| What may be involved in **clearing and tidying** a work site? | This may involve replacing dirt, and the removal and safe disposal of waste. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in this standard requires evidence of the ability to develop conventional fencing plans and implement its construction. It requires the ability to access and interpret plans, arrange surveys and analyse results, calculate cost structures, obtain legal authorisations for development, and provide alternative options. Evidence must also be demonstrated in an awareness of legislative requirements associated with planning and construction activities. The skills and knowledge required to plan and construct conventional fencing must be **transferable** to another rural environment.

For example, this could include different fencing situations, materials, terrain and environments.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Issues affecting property fence planning and construction.<br>• Procedures for planning fencing in relation to the whole property plan.<br>• Range of fencing designs, construction methods and materials.<br>• Types of fencing construction tools and equipment.<br>• Fencing materials and costings.<br>• Common fencing hazards and safety precautions.<br>• OHS legislative requirements and Codes of Practice.<br>• Relevant Codes of Practice with regard to the protection of the environment.<br>• Hazard identification, assessment and control. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Draft fencing plans and specifications.<br>• Cost fencing plans.<br>• Arrange and purchase supplies.<br>• Demonstrate safe workplace practices.<br>• Minimise environmental impacts.<br>• Read and interpret plans.<br>• Consult with and report to management.<br>• Calculate and measure fencing requirements and calculate costings. |

## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Information with regard to fencing requirements and planning may be sourced from management and the property network. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to the type of fencing, siting details and resource requirements may be prepared and included in a plan. |
| 3. How are **activities planned and organised (1)**? | Activities involving the purchasing of materials and arranging their transportation to worksite may be planned and arranged prior to work schedule. |
| 4. How can **team work (1)** be applied? | In the application of methods and procedures to construct fencing according to plan within timeframes and health and safety meetings. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques may be applied in quantity surveying, costing alternatives and measuring and drafting. |
| 6. How can **problem-solving skills (1)** be applied? | Problems of topography, stock pressures, location of gates may be solved by revising and making changes to the fencing plan. |
| 7. How can the **use of technology (1)** be applied? | Technology may be used to communicate, process information and assist in construction processes. |

## Are there other competency standards that could be assessed with this one?

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC3213A Implement property improvement, construction and repair

This competency standard covers the functions required to carry out maintenance and construction of improvements to properties. It requires the application of basic skills and knowledge to assess condition of structures and plan for new improvements. It requires an awareness of workplace safety and environmental practices associated with maintenance activities. The work is likely to be carried out under routine supervision within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Assess property condition | 1.1 | **Property structures** are assessed for soundness and recorded according to **enterprise requirements.** |
| | | 1.2 | Property improvements and maintenance requirements are identified and determined according to enterprise objectives. |
| | | 1.3 | Budgetary parameters are identified and maintained according to enterprise requirements. |
| 2 | Prepare tools and equipment | 2.1 | **Tools, equipment and materials** required to carry out property improvements are identified and arranged on site. |
| | | 2.2 | Tools and equipment are checked for serviceability according to manufacturers specifications. |
| | | 2.3 | Faulty or unsafe tools and equipment are identified and segregated for repair or replacement according to enterprise requirements. |
| | | 2.4 | Existing and potential **hazards** to health and safety are identified, assessed and reported according to **OHS** and enterprise requirements. |
| 3 | Carry out property improvements | 3.1 | Suitable **personal protective equipment** is selected, used, maintained and stored according to OHS and enterprise requirements. |

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| | | 3.2 | Property structures are **constructed, repaired or dismantled** as required according to manufacturers specifications and/or **work plan and regulations** (e.g., demolition code). |
| | | 3.3 | **Basic concrete, masonry or metal repairs** are carried out according to manufacturers specifications and work plan. |
| | | 3.4 | **Maintenance to roads and tracks** are determined and carried out according to work plan and enterprise requirements. |
| 4 | Complete maintenance and improvement activities | 4.1 | Property structures and surrounds are monitored, maintained and improved as required. |
| | | 4.2 | Worksite, tools and equipment are cleaned, returned to operating order, and stored according to OHS and enterprise requirements. |
| | | 4.3 | Unwanted materials and waste from maintenance activities is collected, treated and disposed of or recycled according to enterprise environmental and OHS requirements. |
| | | 4.4 | **Relevant information** is documented and reported according to industry and enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What may be included in **property structures**? | Property structures may include buildings, yards, livestock handling structures, fences, water supply systems, roads, tracks, soil conservation works, irrigation and drainage channels, silage pits, grain and fodder storage, trellises, shelters and shadecloth drying racks. |

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| What **enterprise requirements** may apply to this standard? | This may include local building codes, Australian Quality Standards, Standard Operating Procedures (SOPs), industry standards, work notes, product labels, manufacturers specifications, Material Safety Date Sheets (MSDSs), operator and emergency procedures manuals, technical information, enterprise policies and procedures (waste disposal, recycling and re-use guidelines), supervisors oral or written instructions and reporting requirements. |
| What **tools, equipment and materials** may be used? | This may include hand or small power tools, ladders, spanners, hammers, crowbars, post hole diggers, shovels, pliers, cutters, ponger bar, rattle gun, wire strainers, star picket drivers, string lines, socket sets, power saws, spirit levels, tape measures, hand drills, hand saws, chain saws. Structural finishes may require paint, stains. Cladding maintenance may require corrugated iron, weatherboards, glass, shade cloth, plastic, cement sheeting. Basic welding equipment. |
| What **hazards** may be associated with maintenance activities? | Workplace hazards may include exposure to loud noise and fumes, solar radiation, working at heights, in confined spaces, moving machinery and equipment, manual handling, dust and hazardous substances. It may also include oil and grease spills and electricity while using powered tools. |
| What **OHS** requirements may be relevant to this standard? | Safe systems and procedures for:<br>• operation of tools and equipment.<br>• maintenance and repair methods.<br>• operation of vehicles.<br>• working at heights, including roof framework and cladding.<br>• operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts.<br>• protection against electrical hazards including overhead powerlines and electrical fittings.<br>• identifying and reporting hazards.<br>• lifting, carrying and manual handling.<br>• handling and storage of hazardous substances.<br>• appropriate use, maintenance and storage of personal protective equipment. |

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| | • outdoor work including protection from solar radiation.<br>• protection from hazardous noise, organic and other dusts.<br>• confined space entry. |
| What **personal protective equipment** may be relevant to this standard? | This may include boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, safety harness, respirator or face mask, and sun protection. |
| What may be involved in the **construction, repair or dismantling** of property structures? | Structural maintenance is coordinated with licensed trades to meet State and local government requirements. Repairs may include (but is not restricted to):<br>• Window: replacement of glass panes or louvres, replacement of insect screens or flywire, repair or replacement of window sashes.<br>• Internal or external wall: refastening of cladding, use of brickwork and bricklaying, use of sealants, replacement of sheets, correct use of levels.<br>• Roof surface: corrugated iron, tiles, colorbond, guttering and spouting, downpipes. |
| What information may be included in a **work plan?** | This may include details and procedures of designated work tasks, allocated tools and equipment, materials requirements, procedures for pre-start and safety checks of tools and equipment, timeframe for work completion, risk assessments, managers instructions and reporting requirements. |
| What may be involved in **basic concrete, masonry or metal repairs**? | Concrete and masonry repairs should include correct use of levels, correct design, measurement and installation of formwork, preparation of damaged masonry, correct mix of cement for a given concreting situation, correct laying and tying of reinforcing, finish surface to match existing wall/structure, or as suitable non-slip surface for floor or path areas. Metal work should include basic fabrication and repair. |

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| What requirements may be involved in the **maintenance to roads and tracks**? | Required repairs for roads and tracks should include adequate camber for drainage, thorough compacting of materials, safe operations of vehicles and implements, avoidance of damage to property and equipment.<br>Effectiveness of repairs to roads and tracks may be checked according to cleared culverts or sump holes to allow effective drainage, suitable surface for vehicles or livestock, and minimum ongoing maintenance during a range of weather conditions. |
| What **relevant information** may be documented? | This may include the use and performance of tools and equipment, operational faults or malfunctions, completed maintenance and repair tasks and outcomes, and hazard and incident reports. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in implementing property improvements, construction and repairs requires evidence of the ability to maintain property improvements and surrounding areas. It also requires the ability to use a range of hand and power tools, prepare basic plans, carry out fabrication in wood and steel, and complete a range of earthworks to specification. The skills and knowledge to implement property improvements, construction and repairs must be **transferable** to a different work environment. For example, this could include different properties, improvements, structures, maintenance requirements and work environments.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Machinery and equipment required to carry out property improvements, construction and repairs.<br>• Types of building materials.<br>• Concreting and welding procedures and techniques.<br>• Wood and steel fabrication procedures.<br>• Drainage requirements around structures, tracks |

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| | and roads.<br>• Legislative requirements with regard to construction and structural improvements.<br>• Types of building cladding and finishes, purpose and use.<br>• OHS issues, legislative requirements and Codes of Practice.<br>• Relevant Codes of Practice with regard to protection of the environment.<br>• OHS standards and how to assess and control hazards. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Operate a broad range of tools and equipment.<br>• Apply hand/eye coordination.<br>• Construct assemblies.<br>• Assess the nature and priority of required repairs and maintenance.<br>• Complete a range of earthworks to specification.<br>• Weld using oxy and arc equipment.<br>• Lay and tie reinforcing to specifications.<br>• Demonstrate safe workplace practices.<br>• Minimise impacts to the environment.<br>• Observe and report on the condition of structures and equipment.<br>• Interpret and apply task instructions.<br>• Communicate with work team and supervisor.<br>• Read and interpret maps, plans, site drawings and simple technical drawings.<br>• Record and report on repairs.<br>• Estimate and calculate volumes, usage and measurements. |

## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 =

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perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information with regard to property improvements and maintenance requirements may be discussed with the management. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to repair requirements and may be detailed and organised by reports for analysis. |
| 3. How are **activities planned and organised (1)**? | Activities involving programmed maintenance may be planned and coordinated around work schedules or sequenced as required. |
| 4. How can **team work (1)** be applied? | In the application of methods and procedures to effectively complete scheduled maintenance or repairs within timeframes. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques may be applied in the calculation and measurement of materials. |
| 6. How can **problem-solving skills (1)** be applied? | Contingency plans may be prepared for adverse weather conditions to minimise disruption to work schedules and how to eliminate or control a hazard. |
| 7. How can the **use of technology (1)** be applied? | Technology may be used to communicate, repair and maintain property structures. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC3310A Operate specialised machinery and equipment

This competency standard covers the functions involved in operating specialised machinery and equipment. It requires particular skills and knowledge to operate specialised agricultural, horticultural or conservation and land management machinery. An ability to perform pre-operational checks on machinery, assess work requirements, determine work plans, monitor performance and maintain records is also required. In addition, it requires knowledge of licensing requirements, workplace safety, and positive environmental practices associated with the operation of machinery. Judgement and discretion combined with the ability to work under minimal supervision is necessary.

| Element | | Performance Criteria | |
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| 1 | Select and prepare specialised machinery and equipment for use | 1.1 | **Specialised machinery and equipment** is selected and prepared to job requirements and confirmed against **work plan.** |
| | | 1.2 | Routine **pre-operational checks** of specialised machinery and equipment are completed to manufacturers specifications and **enterprise requirements.** |
| | | 1.3 | **OHS hazards** in the workplace are recognised, risk assessed and minimised according to enterprise requirements. |
| 2 | Operate specialised machinery and equipment | 2.1 | Machinery and equipment is operated in a **safe and controlled** manner and monitored for performance and efficiency. |
| | | 2.2 | Risks to self, others and the environment are anticipated and minimisation strategies implemented accordingly. |
| | | 2.3 | Suitable **personal protective clothing and equipment** is selected, used, maintained and stored according to OHS requirements. |

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| | | 2.4 | **Environmental implications** associated with machinery operation are identified, assessed and reported to the supervisor. |
| 3 | Complete and report on specialised machinery and equipment operation | 3.1 | **Shut-down** procedures for specialised machinery and equipment are completed to manufacturers specifications and enterprise requirements. |
| | | 3.2 | Specialised machinery and equipment operational records are completed and maintained according to enterprise requirements. |
| | | 3.3 | Malfunctions, faults, irregular performance and damage to specialised machinery and equipment are detailed and reported according to enterprise requirements. |
| | | 3.4 | Specialised machinery and equipment is cleaned, secured and stored according to OHS and enterprise requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What range of **specialised machinery** and **equipment** may be covered in this standard? | Skidsteer loaders, self-propelled harvesters and pickers, front end loaders, irrigation equipment, scissor lifts, excavators, forklifts, land levellers, feed mixers, milking machinery, specialised turf equipment, specialised nursery equipment, livestock feeding systems, watering systems, filtering and pumping equipment, poultry performance monitoring equipment, cultivation equipment, fertilising application and grain handling equipment.<br><br>This unit does not include machinery and equipment covered under RTC2306A - Operate vehicles, RTC2307A - Operate machinery and equipment and RTC2309A - Operate tractors. |

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| What may be included in a **work plan?** | Pre-operational checks and maintenance procedures, designated job tasks, equipment, resources and materials for use, supervisors instructions, timeframe for work completion and reporting requirements. |
| What may be involved in routine **pre-operational checks** of machinery and equipment? | • Pre-start and safety checks including the service and maintenance of cooling system.<br>• Checking fuel, oils and lubricants, electrolyte levels, wheels, tyre pressure, fan belts, leads, lines, connections, air filters, brakes, clutch, gearbox, steering, lighting, and transmission.<br>• Inspection of safety guards, PTO stubs and shafts, and hitch and towing points.<br>• Checking and confirming equipment calibration settings and operating methods for turbo-charged engines.<br>• Observing and monitoring noise levels for correct operation.<br>• Preparation of independently powered tools may include cleaning, priming, tightening, basic repairs and adjustments.<br>• Identify and segregate unsafe or faulty equipment for repair or replacement. |
| What **enterprise requirements** may apply to this standard? | Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), OHS procedures, supervisors oral or written instructions, work and routine maintenance plans. |
| What **OHS** requirements may be relevant to this standard? | Systems and procedures for<br>• the safe operation and maintenance of specialised machinery and equipment.<br>• hazard and risk identification.<br>• emergency operating and defensive driving procedures ensuring working loads are secure and within specifications.<br>• appropriate use, maintenance and storage of |

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| | personal protective equipment.<br>• outdoor work include protection from solar radiation, hazardous noise, mechanical vibration and organic and other dusts.<br>• protection of people in the workplace.<br>• passengers are carried only when there is a seat approved by the manufacturer. |
| What **hazards** may be encountered in the workplace? | Exposure to loud noise and fumes, solar radiation, heat stress, fatigue, crushed by a roll over, dust, ergonomic hazards associated with posture and vibration, hazardous substances (fuel, oils, fertiliser), oil and grease spills, the presence of bystanders, livestock and wildlife, difficult terrain and varying gradients, potholes, ditches, gullies, embankments, obstacles (rocks, logs, fences, debris, buildings), extreme weather conditions, electricity, overhead hazards including powerlines, mechanical malfunctions and exposed moving parts, and other machinery including hydraulics. |
| How might **safe and controlled** operation of machinery and equipment be demonstrated**?** | This may include:<br>• Appropriate selection and use of machinery and equipment.<br>• Using operational techniques for the specific terrain (on and off-road environments) and weather conditions.<br>• Maintaining working loads within specifications including ensuring hitch-points are operated at the correct height. |
| What **personal protective equipment** may be relevant to this standard? | Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, high visibility clothing, respirator or face mask, and sun protection (sun hat, sunscreen). |

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| What **environmental implications** may be associated with the operation of machinery and equipment? | Negative environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oil containers, chemical residues), and hazardous substances (fuel, fertiliser). Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities, soil disturbance and dust problems from high activity traffic (including irrigation equipment). |
| What procedures may be included in the **shut-down** of machinery and equipment? | Safe dismount procedures (including turning engine off), maintaining a clear thoroughfare, parking away from hazards, securing, refuelling, cleaning, engaging handbrake and removing vehicle keys. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

### What evidence is required to demonstrate competence for this standard as a whole?

Competence in the operation of specialised machinery and equipment requires evidence of the ability to effectively utilise their respective various components, controls and features to perform specific tasks. It involves selecting the appropriate machinery and equipment for the job, determine operating methods, provide solutions for faults or breakdowns, demonstrate emergency operating procedures, evaluate performance and maintain records. Evidence must also be demonstrated in safe workplace and environmentally responsible practices. The skills and knowledge required to operate specialised machinery and equipment must be **transferable** to a different work environment. For example, this could include different machinery, equipment, workplaces and environments.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Components, controls and features of specialised machinery and equipment and their functions.<br>• Risks associated with the operation of machinery and equipment in different weather and difficult terrain conditions.<br>• Relevant State/Territory legislation, regulations and Codes of Practice with regard to workplace OHS, and the use and control of hazardous substances, chemical and biological agents.<br>• Relevant State/Territory legislation, regulations and Codes of Practice with regard to licensing, roads and traffic requirements, and the use and control of specialised machinery and equipment.<br>• Environmental impacts and minimisation measures associated with the operation of specialised machinery and equipment.<br>• Personal protective equipment and when and how it should be used.<br>• Enterprise policies with regard to specialised machinery and equipment use, recording and reporting routines. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Operate specialised machinery and equipment in normal and adverse conditions to industry standards.<br>• Demonstrate emergency operating procedures in normal and adverse conditions.<br>• Attach and detach a range of three point linkage implements, front-mounted and PTO operated equipment.<br>• Demonstrate safe and environmentally responsible workplace practices. |

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| | • Obtain relevant licences and permits.<br>• Interpret manufacturers specifications, work and maintenance plans, and MSDS.<br>• Communicate faults, malfunctions and workplace hazards, report and maintain operational records.<br>• Measure and calculate volumes, load weights, consumption and servicing requirements. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Information and ideas with regard to specialised machinery and equipment, their components and application to complete work tasks may be discussed with colleagues and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to performance, faults and maintenance may be observed and monitored for analysis and organised by records and reports. |
| 3. How are **activities planned and organised (1)**? | Activities involving maintenance and repairs to specialised machinery and equipment may be planned and coordinated around work schedules or sequenced as required. |
| 4. How can **team work (1)** be applied? | Team work may be applied in communication, methods and procedures to complete maintenance and repairs to complete work tasks. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematics may be applied in the calculation and measurement of load weights, distance, consumption, and oil and fuel requirements. |
| 6. How can **problem-solving skills (1)** be applied? | Specialised machinery and equipment breakdown, faults or malfunctions will need to be arranged for repair or replacement to meet work plan requirements. |
| 7. How can the **use of** | To access, communicate, measure and record |

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| **technology (1)** be applied? | information with regard to maintenance, usage and performance of specialised machinery and equipment. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC3704A Prepare and apply chemicals

This competency standard covers the process of preparing and applying chemicals for the control of weeds, pests and diseases. It requires knowledge of the chemicals related to the workplace, the hazards and risks involved in their use, and the specific safety procedures prescribed for working unsupervised within organisational guidelines. It requires the ability to handle and apply chemicals ensuring minimum risk to self, others and environment and accurately record their use.

**NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Determine the need for **chemical** use | 1.1 | Nature and level of the pest, weed infestation or disease is identified. |
| | | 1.2 | Need for action is assessed. |
| | | 1.3 | Assess the requirement for chemical use as an option within an integrated pest management strategy. |
| | | 1.4 | Hazard and risk analysis of different chemical options is undertaken. |
| | | 1.5 | Requirement for chemical application including coverage by appropriate insurance is identified and confirmed. |
| 2 | Prepare appropriate chemical | 2.1 | Chemical label and Material Safety Data Sheets (MSDS) are read and understood. |
| | | 2.2 | Labels are checked to ensure chemicals meet user requirements and specifications. |
| | | 2.3 | Chemicals are prepared from those registered for the intended purpose, and to suit the organisation's chemical use strategy. |
| | | 2.4 | **Legislation and regulations** concerning chemical use are identified and followed. |
| | | 2.5 | Occupational Health and Safety **(OHS) hazards and risks** and **risk control requirements** associated with use of the chemical are identified. |

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| 3 | Prepare to use chemicals according to the label and MSDS | 3.1 | **Personal protective equipment** is selected and checked for use according to the product label and MSDS. |
| | | 3.2 | Requirements for **pre and post-operative checks** on equipment are followed. |
| | | 3.3 | Damage, wear or malfunctions of any equipment is identified and reported or repaired. |
| | | 3.4 | Requirements for the selection, preparation and adjustment of **application equipment and tools** for the appropriate chemicals are followed. |
| | | 3.5 | Mixing rates are defined and calculated. |
| | | 3.6 | **Directions, standards** and legislative requirements for mixing chemicals are followed. |
| 4 | Apply chemicals | 4.1 | **Meteorological conditions** and forecasts are assessed prior to and during application. |
| | | 4.2 | **Hazards** of particular chemicals are identified. |
| | | 4.3 | **Risks** to others and the environment are assessed and controlled. |
| | | 4.4 | Application equipment calibration procedures are followed. |
| | | 4.5 | Procedures and precautions for the use of the chemicals are interpreted from labels and accreditation requirements. |
| | | 4.6 | Requirements for chemical handling and application are determined from directions, standards and legislative requirements. |
| | | 4.7 | Chemicals are applied safely and effectively according to directions. |
| | | 4.8 | Chemical spills or accident procedures are followed. |
| | | 4.9 | First aid equipment is made available on site. |

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| 5 | Clean up following chemical application | 5.1 | **Tools or equipment** required to clean up chemicals are selected. |
| | | 5.2 | Requirements for cleaning equipment and sites are defined and followed according to directions and standards. |
| | | 5.3 | Requirements for disposing of unused chemicals, empty containers or spilled material are defined from directions and standards. |
| | | 5.4 | Procedures for reporting chemical spills are followed. |
| 6 | Record application details | 6.1 | Application of chemicals is recorded according to **organisation procedures**, label directions and legislation. |
| | | 6.2 | Details of the specific chemical concerned are recorded correctly in the chemical inventory according to regulations. |
| | | 6.3 | Inventory of personal protective equipment and application equipment is recorded. |
| | | 6.4 | Procedures and requirements for reporting application details to senior management or client are followed. |
| | | 6.5 | Records of injury or poisoning associated with application of chemical are made and provided to the **appropriate person.** |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

| | |
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| What **chemicals** may be considered for use? | Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, bio-agents, nematacides, rodenticides, antimicrobial agents, anthelmintics, hormone growth promotants or a range of veterinary chemicals used to treat animals for disease. |

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| What **legislation and regulations** may be relevant to this standard? | Legislation may include Pesticides Acts, Occupational Health and Safety Acts and associated Hazardous Substances Regulations/ Codes of Practice, Dangerous Goods Acts, Poisons Act or Protection of the Environment Acts. |
| What **OHS hazards and risks** are relevant to this standard? | OHS hazards include exposure of the operators and others in the workplace to the absorption of chemicals through the skin and by inhalation and ingestion. Risks may include acute poisoning, chronic or long-term health effects, and lack of appropriate insurance coverage. |
| What **OHS risk control requirements** are relevant to this standard? | OHS risk control measures may include safe application techniques, use and maintenance of personal protective equipment, safe wash down procedures, safe procedures for container rinsing and management. |
| What **personal protective equipment** might be relevant to this standard? | Personal equipment may include boots, overalls, chemical resistant gloves, aprons, face shields, respirators or hats. |
| What **pre and post operational checks** might be relevant to this standard? | Checks may be made to weather conditions (e.g., wind), nozzles, hoses, regulators/gauges, respirator cartridges, drench and protective clothing and equipment. |
| What **application equipment** may be relevant to this standard? | Include knapsacks or hand held pneumatic sprayers, drench guns, spot on applicators, CDA and air assisted units, self-propelled sprayers, controllers or power operated equipment like boomsprays, pressure wands, jetting race, shower/plunge dips, hand jetting or air blast sprayer. |
| What **directions and standards** may be relevant to this standard? | May include the instructions on the chemicals label, in an operator's manual, on a MSDS, in an industry standard, or from Codes of Practice and advisory material explaining legislation relevant to chemical use. |

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| What **hazards** may need to be addressed in this standard? | Hazards will be listed on labels and the MSDS for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, uneven surfaces, trip points, solar radiation, manual handling, faulty equipment, environmental damage or residues in foods. |
| What **risks** may need to be assessed in this standard? | Risks that may be assessed include spillage, contact of chemical with skin or eyes, accidental ingestion, incorrect concentrations in mixtures, faulty or inappropriate storage containers, incorrectly calibrated equipment, spray drift, contamination of waterways, incorrect disposal of unused chemicals or faulty equipment |
| What **meteorological conditions** might be assessed? | Rain, wind, temperature, relative humidity, inversion or stable air conditions. |
| What **tools and equipment** may be used for cleaning up after chemical application or spill? | Include washing soda, chlorine, containers for disposal of chemicals, non-flammable absorbent materials and shovels, booms, sausages and sandbags. |
| What **organisational procedures** may be in place for recording? | Written journal or computer record may be used for recording. |
| Who may be the **appropriate person** to receive reports about accidents and spills? | Include relevant authorities, supervisor, manager, business owner or colleague. |
| For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet. | |

## Evidence Guide

### What evidence is required to demonstrate competence for this standard as a whole?

Competence in this preparing and applying chemicals requires evidence that a person can work unsupervised to prepare the correct chemical for the problem, apply the chemical according to safe work practice and legislation and ensure minimal effects on the environment and others.

The skills and knowledge required to prepare and apply chemicals must be **transferable** to a different work environment. For example, this could include different chemicals, application methods and workplaces.

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**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- Chemical free options for pest control.
- OHS issues, legislative requirements and Codes of Practice relevant to chemical use and hazardous substances.
- Use, maintenance and storage of equipment to prepare and apply chemicals.
- Use, maintenance and storage of personal protective equipment, including how, when and why it should be used.
- Licensing requirements and relevant State authorities.
- Modes of chemical absorption and paths of entry associated with risks to bystanders/public and applicators.
- Environmental effects of chemicals.
- Drift management.
- Calibration and adjustments.
- Integrated Pest Management and Integrated Resistance Management principles.
- Cost effective use of chemicals.
- Hazard identification, assessment and control, and emergency response.
- Correct wearing/fit of personal protective equipment.

**What specific skills are needed to achieve the performance criteria?**

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- Communicate orally and in writing.
- Read and interpret labels.
- Measure quantities, application rates and calibrate equipment.
- Report on and record activities.
- Use safe and environmentally responsible work

practices.

## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Reporting and recording information about chemical application. |
| 2. How can **information be collected, analysed and organised (2)**? | Information in labels, directions, standards and accreditation conditions (in the case of 'prescribed chemicals), need to be interpreted and analysed. |
| 3. How are **activities planned and organised (2)**? | Planning the application of chemicals in conjunction with other workplace activities. |
| 4. How can **team work (2)** be applied? | A chemical strategy may be implemented in a team through health and safety meetings. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Calibration of equipment, mixing chemicals and calculations. |
| 6. How can **problem-solving skills (2)** be applied? | Matching the correct chemical to the problem and ensuring the all accreditation conditions are met. |
| 7. How can the **use of technology (1)** be applied? | Recording information may require the use of appropriate technology. |

## What are the special assessment conditions for this competency standard?

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body. This may include:

1. Accreditation with that issuing body.
2. Maintenance of current competency in this and the following standards:

- RTC3705A -.Transport, handle and store chemicals

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- RTC4702A -.Minimise risks in the use of chemicals
- RTC4703A -.Plan and implement a chemical use program.

3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC3705A Transport, handle and store chemicals

This competency standard covers the process of transporting, handling and storing chemicals safely without supervision. It requires minimising risks, including avoiding spills and accidents, and following procedures, safety and environmental regulations, and Occupational Health and Safety (OHS) requirements to protect the health and safety of everyone in the workplace when handling chemicals. It requires knowledge of the chemicals used in a particular environment and the hazards involved in their handling and storage.

NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Transport and handle chemicals and biological agents | 1.1 | Transport methods according to label and Material Safety Data Sheets (MSDSs) are identified and confirmed to safely transport the **chemical.** |
| | | 1.2 | **Risks** involved in transport and handling are identified and minimised. |
| | | 1.3 | **Personal protective equipment (PPE)** is used to transport and handle chemicals where required. |
| | | 1.4 | Requirements for **safe working procedures** and **legislation** are recognised and followed during transport. |
| | | 1.5 | **Procedures** and risk control measures are in place and followed in the event of a spill or accident. |
| | | 1.6 | Reports of injury or poisoning associated with transport of chemicals are made to the manager. |
| 2 | Store chemicals in the workplace | 2.1 | **Storage method** selected is appropriate for the chemical concerned. |
| | | 2.2 | OHS hazards in the **storage area** are identified and risks controlled. |

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| | | 2.3 | Storage method selected is appropriate to prevent contact with people or animals, and contamination of produce or the environment. |
| | | 2.4 | Requirements to maintain storage area in accordance with **directions and standards** related to chemicals are defined. |
| | | 2.5 | Safe working procedures for the storage of chemicals are defined. |
| 3 | Record storage details | 3.1 | Chemical store inventory is maintained. |
| | | 3.2 | Storage of chemicals is recorded in accordance with OHS and enterprise requirements. |
| | | 3.3 | Records of injury or poisoning associated with transport and storage of chemicals are made and provided to the manager. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What **chemicals** may be transported, handled and stored? | Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, biologicals, nematacides, rodenticides, antimicrobial agents, anthelmintics, hormone growth promotants, molluscicides and avicides, or a range of veterinary chemicals used to treat animals for disease. |
| What **risks** may need to be minimised during the transport and storage of a chemical? | May include serious potential affects on worker's health during transport due to spillage or accident, poisoning, affects on public health through possible cross-contamination of produce, damage to the environment and the general public in the event of spillage or leakage during transport, lack of appropriate insurance coverage, chemicals flowing into drains, water sources or produce growing areas. |

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| What **hazards and risks** may occur during the transport of a chemical? | Contact with chemicals through the skin, inhalation or ingestion may cause acute poisoning, or chronic or long-term health effects. These may occur through direct contact with a spilled chemical, or through contamination of food. Material Safety Data Sheets (MSDS) provide health information. Other hazards and risks include fire and explosion. |
| What **personal protective equipment** may be relevant to this standard? | May include boots, overalls, chemical resistant gloves, aprons, face shields, respirators or hats. |
| What **hazards** may be relevant to this standard? | Hazards will be listed on labels and the MSDS for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage or residues in foods. |
| What **storage methods** might be relevant to this standard? | Storage methods may include on site or off site, approved drums, bottles or containers. |
| What equipment may be found in a **storage area**? | Equipment may include specific dispensing and preparation equipment, recording of processes and use, and associated safety equipment such as eyewash and emergency showers. |
| What **directions and standards** might be relevant to this standard? | May include directions on a label, in an operator's manual, on a MSDS, in an industry standard, or from Codes of Practice, and advisory material outlining legislation relevant to chemical use. Regulations to be followed may include segregation, wash down areas and sumps. |
| What **safe working procedures** are relevant to this standard? | Safe working procedures may include following manufacturers instructions, separating chemicals from passengers, observing loading instructions, ensuring liquids are top side up, ensuring chemicals are correctly labelled, ensuring no cross-contamination, safe driving and vehicle operation, ensuring load is not stacked too high, ensuring the chemicals are protected from the weather, and ensuring the load is secure. |

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| What **legislation** may be relevant to this standard? | Legislation may include Pesticides Acts, Occupational Health and Safety Acts and associated Hazardous Substances Regulations/ Codes of Practice, Dangerous Goods Acts, Poisons Schedule or Protection of the Environment Acts. |
| What **procedures** following a spill or accident might be relevant to this standard? | Procedures may include directions on labels, MSDS, OHS and environmental regulations or operator's manuals, and may cover cleaning the site, monitoring and protecting the environment where possible, securing the area and notifying authorities. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in transporting, handling and storing chemicals requires evidence that a person can safely and securely transport, handle and store chemicals in the workplace without harming people, foodstuffs or the environment. The skills and knowledge required to transport and store chemicals must be **transferable** to other workplaces. For example, this could include different transport methods, storage structures and workplaces.

**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- Australian Standards Association (ASA) levels and standards.
- Risks to the environment.
- Different methods of transport.
- OHS risks management principles as they apply to hazardous substances.
- Hazards and risks involved in the transport of the specific chemical concerned and related control measures.

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| | • Relevant OHS legislative requirements and Codes of Practice with regards to hazardous substances and the use of chemicals.<br>• Correct wearing/fit of personal protective equipment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Accurately read and interpret instructions for transporting and handling chemicals.<br>• Accurately read and interpret instructions for action to be taken to control and minimise the effects of a spillage of chemicals.<br>• Communicate with others regarding transport and storage processes. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Information about the transport arrangements for chemicals will need to be communicated to relevant authorities, supervisor and colleagues. |
| 2. How can **information be collected, analysed and organised (2)**? | Information about hazards and risks associated with transporting chemicals will be collected and analysed. |
| 3. How are **activities planned and organised (2)**? | Transport and storage will need to occur without harming or interrupting other workplace activities. |
| 4. How can **team work (3)** be applied? | Ensuring others are aware of transport of chemicals, and the hazards and control measures. |

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| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Amounts of chemical that can be safely transported in one load and how they can be stored. |
| 6. How can **problem-solving skills (2)** be applied? | Difficulties with transport vehicles or the storage area may require problem solving. |
| 7. How can the **use of technology (2)** be applied? | The use of the storage manifest may require use of appropriate technology. |

**What are the special assessment conditions for this competency standard?**

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body. This may include:

1. Accreditation with that issuing body.
2. Maintenance of current competency in this and the following standards:
   - RTC3704A - Prepare and apply chemicals
   - RTC4702A - Minimise risks in the use of chemicals
   - RTC4703A - Plan and implement a chemical use program.
3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC3805A Coordinate work site activities

This competency standard covers the process of coordinating work site activities for small-scale projects. Responsibility may be for the basic direction and coordination of small groups working on a site remote from the main enterprise, small projects or parts of projects, or small areas within the enterprise. The coordination of work site activities is likely to be under limited supervision with checking only related to overall progress. Work site coordination requires the application of extensive agricultural, horticultural and/or conservation and land management knowledge, and a broad range of relevant skills. The work is usually done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions, and achieving outcomes within time constraints.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for **work site activities** | 1.1 | Requirements of the work are clarified with supervisor of the project. |
| | | 1.2 | Personnel, equipment and material **resource requirements** are identified according to the scope of the project and supervisors instructions. |
| | | 1.3 | The order of activities and time allocation is identified, documented and presented to the supervisor for verification. |
| | | 1.4 | The **environmental implications** of the proposed work site activities are identified and the likely outcomes assessed and reported to the supervisor. |
| | | 1.5 | **OHS hazards** are identified, risks assessed and reported to the supervisor. |
| | | 1.6 | **Personal protective equipment** (PPE) is selected, used, maintained and stored according to the type of work site activities to be undertaken. |
| 2 | Organise resources | 2.1 | **Materials** are purchased and **equipment/machinery** is hired as authorised by the supervisor and |

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| | | | according to enterprise guidelines. |
| | | 2.2 | **External agency permits** are gained in the correct order as necessary. |
| | | 2.3 | Neighbours and affected parties are **notified** of works to be undertaken as necessary. |
| | | 2.4 | Delivery of materials and equipment/machinery to site is organised according to documented order of activities. |
| | | 2.5 | Personnel are organised to be on site when they are required. |
| 3 | Coordinate and report on activities | 3.1 | All resources are coordinated and timed to suit the scope of the project and order of activities. |
| | | 3.2 | Personnel are directed in activities for each period of work. |
| | | 3.3 | Personnel, activities, timelines and resource usage are monitored and **documented** according to enterprise guidelines. |
| | | 3.4 | **Contingency situations** are recognised and reported to the supervisor, and corrective actions taken according to enterprise guidelines. |
| | | 3.5 | A simple **project report** is written to inform management of work site activities undertaken and completed. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work contexts.

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| What might be included in **work site activities?** | Work site activities may be part of small or short-term projects or be part of larger projects. |

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| What material, equipment/ machinery and personnel **resource requirements** are likely to be identified? | Materials may include goods that will be consumed by the project such as fertilisers, plants, stakes and mulch in a planting program. Equipment and machinery may include hand tools, tractors, vehicles, watering equipment and personal protective equipment. Personnel may include those obtained from within an enterprise, staff "borrowed" from another enterprise, hired from a contracting firm, or hired for the project from outside the industry. |
| What might be the **environmental implications** of proposed work site activities? | Environmental implications may include threats to flora and fauna; risk of contamination of soils, water or adjoining property through fertilisers and chemicals flowing into drains and water sources. Land used for a planting program for example may include chemical residues in the soil, spray drift, contaminated run-off water, run off from over-watering, diseased plant material, waste plant material, and physical damage such as soil compaction from machinery.<br><br>Where new sites are established the interruption of native corridors and degradation of the ecosystem edge may compromise existing native ecosystems.<br><br>If the project involves construction activities, this may impact on the environment due to excess noise, dust or water.<br><br>Compliance with local, State/Territory, and Commonwealth environmental legislation may be required if removing trees for example.<br><br>Legislation may address management requirements for water, natural heritage, vegetation clearance and waste. |
| What **OHS hazards** may apply to work site activities? | Hazards may include disturbance of services, solar radiation, dust, noise, through traffic, uneven surfaces and holes, moving machinery and machinery parts, powered equipment and hand tools, confined spaces, hazards from use of hired equipment (untrained staff), and overhead hazards including powerlines. |

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| What **PPE** is likely to be selected? | PPE will be determined by the type of activity being undertaken and may include work boots, gloves, overalls, sun hat and sunscreen lotion, safety harness, hard hat, hearing or eye protection, respirator or face mask. |
| Where might the **materials** be available from? | Materials to be consumed by the activity may be available through the enterprise as a stockpile or stored goods, or it may be purchased for the job. Materials are often available through supply companies. The enterprise may have purchasing policies and procedures and existing accounts with some suppliers. |
| Where might **equipment/machinery** be sourced? | Equipment and machinery to be used for the activity may be available through the enterprise, or hired or "borrowed" for the job. There are many commercial places that hire machinery on a daily charge out rate, or some enterprises may lend specialist equipment or machinery as part of a reciprocating arrangement. |
| What type of activities may require **external agency permits**? | Some typical activities that may need a permit include: pruning or removal of large trees, connecting to water systems, application and disposal of chemicals and polluted waters, operating specialised machinery (e.g., chainsaws, skid steer loaders, forklifts), working outside normal hours, setting up traffic and pedestrian barriers and digging near services (phone, gas, power, water, sewerage and drains). |
| What situations may require neighbours and affected parties to be **notified?** | Neighbours may need to be notified if the activities involve high levels of noise, dust or chemical use. Often the local council requires notices to be sent out in advance of such work. |
| Why would activities etc be **documented?** | Documentation of work site activity may allow you to determine if the work is on track, provide progress reports to supervisors, and plan for delivery and storage of materials and hiring of equipment to minimise costs and time wasting for the enterprise. |

| | |
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| What might be considered **contingency situations**? | Contingency situations may include the delay in delivery and/or breakdowns with equipment and machinery, poor weather conditions, poor quality materials and unforseen soil problems. A coordinator of work site activities may need to be prepared for such situations and provide other work on the project until the problem is fixed, provide other work away from the site, or delay the project if possible. |
| What might be included in a simple **project report**? | A project report may include the project name, authors name and date, project description, progress of activities, major issues, OHS issues, expenditure and any future activities that may need to be planned. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in **coordinating work site activities** construction works requires evidence that a person can prepare and plan for activities, organise all resources required, and monitor and report on activities undertaken. The skills and knowledge required to **coordinate work site activities** must be **transferable** to a different work environment. For example, this could include different projects, workplaces and labour force situations.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Environmental awareness associated with undertaking project works to ensure the impact on the environment is minimal.<br>• Work schedule programming.<br>• Hiring and subcontracting of labour.<br>• Possible causes of disruption to work activities and their effect on quality and time schedules.<br>• Responsibilities and requirements for obtaining |

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| | external agency permits as necessary.<br>• The range, use and availability of materials, equipment and machinery that may be required for the project.<br>• OHS issues, legislative requirements and Codes of Practice. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Read and interpret documentation associated with work site activities.<br>• Calculate material and resource requirements.<br>• Coordinate a team to achieve optimum performance.<br>• Communicate with personnel at all levels.<br>• Document results clearly and concisely.<br>• Perform an OHS risk assessment. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Ideas and information may need to be communicated with the supervisor as work site activities progress. |
| 2. How can **information be collected, analysed and organised (2)**? | Information on personnel and resource requirements may need to be collected, analysed and organised according to the scope of the project to be coordinated. |
| 3. How are **activities planned and organised (2)**? | Activities may need to be planned and organised to ensure that the needs of management are met and that the site activities are completed on time. |
| 4. How can **team work (2)** be applied? | Team work may be applied to ensure that all site works are completed successfully. |

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| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical ideas and techniques may be applied when organising time frames for each activity in the project. |
| 6. How can **problem-solving skills (2)** be applied? | Site contingencies, personnel difficulties, timeline failures, and assessing hazards and identifying controls may require problem-solving skills. |
| 7. How can the **use of technology (2)** be applied? | Technology may be used to communicate and record progress of work site activities. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC4306A Supervise maintenance of machinery and equipment

This competency standard covers the functions involved in supervising the maintenance of property, machinery and equipment. It requires the application of skills and knowledge to develop and implement a maintenance plan which is cost efficient, and causes minimal disruption to enterprise operations. It involves determining and scheduling staff and resources and maintaining relevant legislative requirements, safe workplace and positive environmental practices. The work functions in this standard are likely to be carried out independently within enterprise guidelines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare maintenance plan | 1.2 | **Maintenance requirements** for property, machinery and equipment are identified from relevant **information sources.** |
| | | 1.2 | Maintenance costs are identified and quantified. |
| | | 1.3 | Maintenance requirements are checked against warranty, insurance agreements and indemnity provisions. |
| | | 1.4 | **Maintenance plan** is developed to promote and sustain performance and production systems in line with **enterprise requirements.** |
| | | 1.5 | Effective workplace communication strategies are established with regard to maintenance plan, **environmental and OHS policies,** and enterprise requirements. |
| 2 | Implement maintenance plan | 2.1 | **Resource and supply** requirements are identified, secured and included in enterprise budgets and operational considerations. |

| | | | |
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| | | 2.2 | Prepared maintenance schedules and procedures are effectively communicated to staff, contractors and suppliers to minimise negative impacts on production and costs. |
| | | 2.3 | Maintenance plan is implemented and scheduled to minimise disruption to enterprise operations. |
| | | 2.4 | Potential risks are assessed with regard to staff and supply problems, and contingency plans prepared accordingly. |
| | | 2.5 | Machinery and equipment are operated to manufacturers specifications, OHS and enterprise requirements. |
| 3 | Monitor maintenance plan | 3.1 | Maintenance activities and performance are monitored against maintenance plan for efficiency and effectiveness. |
| | | 3.2 | Workplace **hazards** and environmental implications associated with maintenance procedures are monitored and controlled in line with OHS and enterprise requirements. |
| | | 3.3 | Costs are monitored and controlled within enterprise budget requirements. |
| | | 3.4 | **Relevant information** with regard to the maintenance plan is documented in accordance with enterprise requirements. |
| | | 3.5 | Property, machinery and equipment are maintained in clean and safe operational conditions. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What factors may necessitate the **requirement for maintenance** procedures? | Wear, corrosion, design problems, equipment modifications, incorrect use and accidents, acts of nature. |

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| What **information sources** may be consulted? | Operational diaries, staff comment and/or personal testing, observation of structures, machinery and equipment, manufacturers in-service updates, operator's manuals, property improvement groups, relevant government departments, other enterprise operators, contractors and service representatives. |
| What might be included in a **maintenance plan?** | Maintenance activities and schedules, maintenance costs and budget details, staff, resource and supply requirements, staff roles and responsibilities, contingency plan for staff and supply problems, reporting requirements, hazard and risk control measures, OHS procedures, personal protective clothing and equipment requirements, and environmental impact control measures. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOP), industry standards, production schedules, Material Safety Data Sheets (MSDS), legislative and licensing requirements, work notes, product labels, manufacturers specifications, operator's manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and OHS procedures. |
| What environmental impacts may be addressed in enterprise **environmental** policies? | Environmental impacts resulting from excessive noise and exhaust emissions, damage to native vegetation and animals, the unsafe use and disposal of maintenance debris (oil containers, chemical residues), and hazardous substances (fuel, oils). It may also include dust problems, soil disturbance and increased run-off flows from machinery use and unsafe cleaning and servicing activities. |

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| What **OHS requirements** may be relevant to this standard? | Systems and procedures for the safe maintenance of property, machinery and equipment including hydraulics and exposed moving parts. Hazard and risk assessment of workplace and maintenance activities and control measures. Safe lifting, carrying and handling techniques including manual handling, and the handling and storage of hazardous substances. The appropriate use, maintenance and storage of personal protective clothing and equipment which may include overalls, gloves, eye and hearing protection, respirator or face mask and boots. Safe systems and procedures for outdoor work including protection from solar radiation, fall protection, confined space entry, the protection of people in the workplace, and the appropriate workplace provision of first aid kits and fire extinguishers. |
| What may be included in **resource and supply** provisions? | Machinery, equipment and materials including welders (arc, gas and MIG), lathes, bench presses, multimeters and ohm meters, inspection pits, lifting and support equipment (jacks, overhead gantry, blocks), power tools (grinders, drills), hand tools (spanners, hammers, screw drivers). Workshop storage requirements may include racks for commonly used steel angle, rods, tube metal, wire, racks or boards for orderly placement of tools. |
| What **hazards** may be encountered in the workplace? | Exposure to loud noise and fumes, solar radiation, dust, mechanical vibration, and hazardous substances (fuel, oils), hazardous atmosphere, oil and grease spills, the presence of bystanders, livestock and wildlife in the workplace, adverse weather conditions, electricity, powerlines, mechanical malfunctions and other machinery including hydraulics and exposed moving parts. |
| What **relevant information** may be documented? | This may include maintenance performance, costs, problems, priorities, solutions, schedules and completed work. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

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# Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in supervising maintenance requires the ability to supervise maintenance covering all components of planning, costing and scheduling. It requires the ability to determine planning priorities and maintain schedules, overseeing costs within budgets, determine staff roles and supervise a maintenance team, apply estimations and calculations with regard to time and costs of repairs, replacement and servicing procedures, recommend alternative strategies in the event of staff or supply problems, and monitor and maintain maintenance records. Evidence must also be demonstrated in the employment of safe and environmentally responsible workplace practices. The skills and knowledge required must be **transferable** to a different work environment. For example, if competence is evident in maintenance procedures conducted on machinery in a workshop context, it must also be evident in supervising maintenance on a different property, or different machinery and equipment.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Types of maintenance requirements with regard to property, machinery and equipment.<br>• Maintenance and servicing cycles for property, machinery and equipment.<br>• Relevant State/Territory legislation, regulations and Codes of Practice with regard to workplace OHS and environmental protection requirements, and the use and control of hazardous substances.<br>• Hazards and risks and respective control measures.<br>• Training and instruction techniques for directing the learning of staff. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Plan, cost and schedule maintenance requirements<br>• Establish and monitor performance targets for maintenance team. |

- Maintain accurate record and report keeping procedures.
- Monitor and assess performance of maintenance activities.
- Interpret maintenance requirements from information sources.
- Observe the emergence and supervise the removal of workplace hazards and risks.
- Document plans and write reports.
- Estimate and calculate resources requirements, machinery and servicing costings.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information with regard to maintenance requirements and costings may be discussed with staff, contractors and suppliers. |
| 2. How can **information be collected, analysed and organised (1)**? | Information with regard to the performance and outcomes of maintenance activities may be documented and organised by records. |
| 3. How are **activities planned and organised (2)**? | Maintenance activities may be planned and coordinated with staff around enterprise operations. |
| 4. How can **team work (1)** be applied? | Team work may be applied in the coordination of methods and procedures to monitor and conduct maintenance activities to achieve maintenance plan. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical techniques may be applied to estimate and calculate maintenance and repair costings within budgetary guidelines. |
| 6. How can **problem-solving skills (2)** be applied? | Problems of staff, resources or supply may be planned for and prepared in a contingency plan to minimise disruption to work schedules. |

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| 7. How can the **use of technology (1)** be applied? | To access information, communicate, monitor, measure and record information with regard to maintenance activities and performance. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC4702A Minimise risks in the use of chemicals

This competency standard covers the process of developing, implementing and monitoring a risk control strategy in a workplace where chemicals are being handled and used. It requires knowledge of legislation and regulations surrounding chemical use, the ability to develop and implement procedures to ensure minimum risk to users, the environment and the produce, and the ability to carry out a risk assessment.

**NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Identify hazards involved in chemical use | 1.1 | **External guidelines and legislation** concerning **chemical** use are identified and sourced from relevant authorities. |
| | | 1.2 | **Hazards** involved in handling and application of chemicals are identified. |
| 2 | Assess risk and develop control procedures | 2.1 | **Risks** associated with chemical use are assessed. |
| | | 2.2 | Risk control measures including **Emergency** action plans are developed and implemented. |
| | | 2.3 | Industry requirements for chemicals are identified. |
| | | 2.4 | **Withholding periods** are identified and observed. |
| | | 2.5 | **Control procedures** for transport, storage and handling of chemicals are developed. |
| | | 2.6 | Continuous improvement strategy is implemented to minimise risk. |
| 3 | Implement and monitor procedures to ensure correct and safe use and application of chemicals | 3.1 | Appropriate **personal protective equipment** is provided for people in the workplace handling chemicals. |
| | | 3.2 | Procedures are implemented to ensure suitable **application equipment** is selected and used. |

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| | | 3.3 | Restrictions on use of chemicals due to weather or unsuitable workplace activities are implemented. |
| | | 3.4 | Procedures covering chemical application rates are implemented and monitored. |
| | | 3.5 | Procedures for decontamination and disposal of chemicals and their containers are implemented and monitored. |
| | | 3.6 | Adherence to risk control procedures by people in the workplace is monitored. |
| 4 | Record risk assessments | 4.1 | Record keeping system is developed as required by labels, industry, legislation and authorities. |
| 5 | Evaluate risk control measures | 5.1 | **Procedures for evaluating** the effectiveness of risk control measures are developed. |
| | | 5.2 | Shortcomings in existing risk control measures are identified and rectified. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What **external guidelines** and **legislation** may be relevant to this standard? | Guidelines may include Quality Assurance systems or Codes of Practice. Legislation may include Pesticide Acts, Occupational Health and Safety Acts regarding hazardous substances and application equipment, Dangerous Goods Act, Poisons Act or Protection of the Environment Acts. |
| What **chemicals** may be involved? | Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, biologicals, nematacides, rodenticides, antimicrobial agents, anthelmintics, fumigants, hormone growth promotants or a range of veterinary chemicals used to treat animals for disease. |

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| What **hazards** may be relevant to this standard? | Hazards will be listed on labels and the Material Safety Data Sheets (MSDS) for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage or residues in foods. |
| What **risks** may be relevant to this standard? | Risks to environment may include pollution of ground or surface waters, damage to habitats, damage to off-target organisms, or damage to community amenity due to spray drift.<br>Risks associated with the produce include chemical residue in plant produce, livestock or water.<br>Risks associated with OHS include exposure to chemicals during handling and application, and public health risks.<br>Other risks include lack of appropriate insurance coverage. |
| What **emergencies** may be relevant to this standard? | Emergencies may include spills, fire, explosion or poisoning. |
| What **withholding periods** may be relevant to this standard? | May include export slaughter interval or withholding period. |
| What risk **control procedures** may be relevant to this standard? | May include provision of adequate personal protective equipment, storage facilities that are suitable to the chemical, implementing buffer zones and other sensitive site strategies, erecting bunding, and sufficient training in transporting, handling and storing chemicals. |
| What **personal protective equipment** may be relevant to this standard? | May include chemical resistant gloves, boots, overalls, breathing apparatus, goggles, face shields or hats. |
| What **application equipment** may be relevant to this standard? | Include knapsacks or hand held pneumatic sprayers, drench guns, spot on applicators, CDA and air assisted units, self-propelled sprayers, controllers or power operated equipment like boomsprays, pressure wands, jetting race, shower/plunge dips, hand jetting or air blast sprayer. |

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| What **procedures for evaluating** are relevant to this standard? | May include analysing records to evaluate effectiveness of risk control measures. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Overall competence in this standard requires evidence that a person can act to minimise risks associated with chemical spills, ensuring that damage to environment and others is minimal, that safety precautions and regulations are followed at all times, and that the area is cleaned according to prescribed requirements. These skills must be **transferable** to other work contexts.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Sources of information on chemicals, including labels, regulations, and MSDS.<br>• Relevant industry standards, Codes of Practice, State and Territory legislation and regulations governing application, transport, handling and storage of chemicals.<br>• OHS legislative requirements and Codes of Practice.<br>• Insurances required for chemical use, transportation and storage.<br>• Correct wearing/fit of personal protective equipment. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Read and interpret all appropriate relevant chemical related documents.<br>• Communicate procedures to others. |

- Manage chemical use to comply with industry standards.

## What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Information from a range of sources concerning chemical use will be communicated to others. |
| 2. How can **information be collected, analysed and organised (2)**? | Information on risks involved with chemical use will be collected and analysed to develop risk control measures. |
| 3. How are **activities planned and organised (3)**? | Procedures developed to handle and use chemicals will have to incorporate workplace activities and their planning. |
| 4. How can **team work (3)** be applied? | Team work may be involved in implementing and monitoring procedures. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Interpreting Maximum Residue Limits will involve mathematical techniques. |
| 6. How can **problem-solving skills (3)** be applied? | Assessing comparative risks associated with a variety of chemicals will involve problem solving. |
| 7. How can the **use of technology (2)** be applied? | Technology may be involved in developing and implementing procedures and monitoring outcomes. |

## What are the special assessment conditions for this competency standard?

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body.

This may include:

1. Accreditation with that issuing body.

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2. Maintenance of current competency in this competency standard.
3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC4703A Plan and implement a chemical use program

This competency standard covers the process of planning and implementing a program for the use of chemicals in a workplace. It involves using chemicals as well as supervising others in the use of chemicals concerned, and the ability to modify application requirements as needed. It involves decision making in regards to the risk control measures to be applied when using chemicals in different situations, monitoring safety procedures, and ensuring that others are trained sufficiently in the use of the chemical concerned. It involves the selection and management of chemical application systems.

**NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Identify the requirements of chemical use | 1.1 | **Chemical** use requirements relevant to the workplace are accessed and interpreted. |
| | | 1.2 | **Legalisation and safety procedures** surrounding the use of chemicals are accessed and interpreted. |
| | | 1.3 | **Personal protective equipment** is used and provided to others for transport, storage and application of chemicals. |
| | | 1.4 | Industry standards for chemical use are identified. |
| | | 1.5 | Appropriate insurance policy cover is confirmed or arranged. |
| 2 | Monitor the implementation of safety requirements | 2.1 | Implementation of safety practices and rules by others is monitored. |
| | | 2.2 | Safety incidents are investigated and reported in accordance with **directions, standards** and legislative requirements. |
| | | 2.3 | Safety **hazards** in the transport, storage and application of the chemicals are identified. |
| | | 2.4 | **Risk control measures** to minimise risk involved in chemical use. |

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| | | | |
|---|---|---|---|
| | | 2.5 | Measures for controlling residue in the environment and produce are implemented. |
| 3 | Plan and implement a maintenance program for chemical use equipment | 3.1 | Plan for maintenance of application and personal protective equipment is established according to manufacturers instructions. |
| | | 3.2 | Implementation of maintenance plan is supervised. |
| | | 3.3 | Faulty or damaged equipment is identified and repaired or replaced. |
| 4 | Determine the suitability of a chemical for use in a control program | 4.1 | Integrated Pest Management (IPM) or Animal Health Strategy (AHS) is planned. |
| | | 4.2 | Chemicals included in the IPM or AHS are selected according to situation. |
| | | 4.3 | Alternatives to chemical treatments are considered and applied according to IPM or AHS. |
| 5 | Ensure the correct selection and application of the chemical | 5.1 | Chemicals suitable for **situation** are identified, and procedures for preparation, application and **risk control** are read and interpreted. |
| | | 5.2 | **Application equipment** is selected in accordance with procedures. |
| | | 5.3 | Ensure calibration of equipment is implemented according to directions and standards. |
| | | 5.4 | Pre-operative checks and maintenance procedures are implemented. |
| | | 5.5 | **Meteorological conditions** are assessed as appropriate to application prior to and during chemical application. |
| | | 5.6 | Chemical application is conducted safely in accordance with hazards associated with the chemicals concerned. |
| | | 5.7 | Chemical spills or accidents are dealt with according to procedures. |

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| | | | |
|---|---|---|---|
| 6 | Ensure personnel are adequately trained in chemical use | 6.1 | Training is provided to personnel who are handling or using chemicals. |
| | | 6.2 | **External training and assessment** opportunities are organised for staff involved in using chemicals. |
| 7 | Supervise clean up following chemical application | 7.1 | Clean up procedures are implemented following chemical applications. |
| 8 | Implement recording systems for chemical storage and use | 8.1 | Records comply with legislation and regulations surrounding chemical use. |
| | | 8.2 | Risk assessment and control strategies are recorded in accordance with requirements. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What **chemicals** may be relevant to this standard? | Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, biologicals, nematacides, rodenticides, fumigants, antimicrobial agents, anthelmintics, hormone growth promotants or veterinary chemicals. |
| What **legislation and safety rules** may be relevant to this standard? | May include approved Pesticide Acts, OHS Acts regarding hazardous substances and application equipment, Dangerous Goods Act, Poisons Act or Protection of the Environment Acts for chemical use. |
| What **personal protective equipment** may be relevant to this standard? | May include boots, overalls, chemical resistant gloves, aprons, face shields, respirators and hats. |
| What **directions and standards** are relevant to this standard? | May include the instructions on the chemical label, in an operator's manual, on a Material Safety Data Sheets (MSDS), in an industry standard, from an OHS manual or other regulation, or a hazardous substances regulation. |

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| | |
|---|---|
| What **hazards** may occur in the use of chemicals? | Hazards will be listed on labels and the MSDS for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage, off target spray drift or residues in foods. |
| What **risk control measures** may be implemented and monitored as part of this standard? | Risk control measures that may be implemented include those relating to spillage, fire, contact of chemical with skin or eyes, accidental ingestion, incorrect concentrations in mixtures, faulty or inappropriate storage containers, current insurance policies, likelihood of run-off post application, incorrectly calibrated equipment, spray drift, incorrect disposal of waste chemicals or faulty equipment. |
| What **situation** may be relevant to this standard? | Situation may include weeds, insects, pathogens, and vertebrate animals. |
| What **application equipment** may be relevant to this standard? | May include hand held knapsacks or pneumatics, drench guns, spot on or power operated equipment like boomsprays, pressure wands or air blast sprayer, jetting race, hand jetting and shower/plunge dips. |
| What **meteorological conditions** might be assessed? | Rain, wind, temperature, relative humidity, inversion or stable air conditions. |
| What **external training and assessment** may be relevant to this standard? | Training may include formal training and assessment by a Registered Training Organisation (RTO) either on or off the job, or Recognition of Prior Learning process. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Overall competence in this standard requires evidence that a person can not only select, apply and clean up the application of a specific chemical, but also that they can supervise others working with the chemical, ensure that all prescribed safety directions are followed, and monitor the implementation of the systems and procedures developed for chemical concerned. The skills and knowledge in this standard should be **transferable** to other work contexts.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Hazards involved in the use of the specific chemical concerned and related risk control measures.<br>• Signs of pest damage and signs of beneficial organisms.<br>• Life cycle of pests and target stages.<br>• Pest resistance to chemicals.<br>• Types of chemical and modes of action.<br>• Maximum residue limits.<br>• OHS legislative requirements and Codes of Practice relevant to chemical use and hazardous substances.<br>• Application equipment features.<br>• Calibration.<br>• Knowledge of record keeping systems.<br>• Knowledge and understanding of relevant control of use Acts.<br>• Use, maintenance and storage of personal protective equipment.<br>• Correct wearing/fit of personal protective equipment.<br>• First aid and emergency procedures.<br>• Insurances required for chemical use, transportation and storage. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Access, accurately read and interpret conditions and labels information for chemicals.<br>• Communicate critical chemical information to others and ensure understanding.<br>• Direct others to perform tasks. |

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- Identifying hazardous situations.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Procedures, policies and safety information are communicated to others in the workplace. |
| 2. How can **information be collected, analysed and organised (3)**? | Information on labels, MSDS and legislation need to be interpreted and analysed. |
| 3. How are **activities planned and organised (3)**? | Overall organisation management will require activities to be planned in conjunction with chemical use. |
| 4. How can **team work (3)** be applied? | Working with others, internal and external to the organisation, requires teamwork. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Calibration and calculation of equipment and chemicals requires mathematical techniques. |
| 6. How can **problem-solving skills (2)** be applied? | Identifying hazards and potential problems that may arise during chemical use and developing suitable solutions and risk control measures. |
| 7. How can the **use of technology (2)** be applied? | Technology may be required to record and manage chemical information. |

**What are the special assessment conditions for this competency standard?**

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body.

This may include:

1. Accreditation with that issuing body.
2. Maintenance of current competency in this competency standard.
3. Involvement in professional development programs comprising technical and

legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC4905A Cost a project

This competency standard covers the process of obtaining, calculating, summarising and presenting the costs of materials, equipment and labour for a project to the best financial advantage of a rural, horticultural or land management enterprise. Costing a project is likely to be undertaken without supervision with only general guidance on progress sought by managers. Costing a project requires a broad range of analytical skills and involves the application of extensive underpinning knowledge that includes pricing structures and project financial requirements.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Obtain current prices for project resources | 1.1 | Project objectives, required **work activities** and available finance are identified and interpreted according to the project plan and **enterprise guidelines.** |
| | | 1.2 | **Resources** required for project works are identified according to the project plan. |
| | | 1.3 | **Factors** affecting resource costs are identified using **available information.** |
| | | 1.4 | **Add-on costs** are taken into consideration according to enterprise guidelines. |
| | | 1.5 | Appropriate **tools and equipment** are selected and used for the calculation and documentation of project costs. |
| 2 | Calculate individual itemised costs of the project | 2.1 | Unit and total cost for each resource item is calculated according to enterprise guidelines. |
| | | 2.2 | Total itemised resource costs are evaluated against the financial schedule for the project. |
| | | 2.3 | **Adjustments** are made where required to reconcile resource costs with project schedules in strict adherence to enterprise guidelines for costing a project. |
| 3 | Prepare a summary of the cost of the project | 3.1 | Resource costs are collated and scheduled according to the project plan |

| | |
|---|---|
| | and enterprise guidelines. |
| 3.2 | Total project costs are accurately calculated and **recorded** according to enterprise guidelines. |
| 3.3 | **Financial summary** is collated, organised and submitted to management for approval. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

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| What **work activities** may be relevant to project costing? | Work activities may include activities to implement the project plan, identifying and minimising OHS and environmental hazards, and monitoring, recording and reporting the project plan. |
| What **enterprise guidelines** may be referred to when costing a project? | Enterprise guidelines may include the business, production, marketing, financial and human resource management plans, and enterprise policies and procedures. |
| What **resources** may be required for project works? | Resources may include materials, tools, equipment and machinery, labour hours, staffing levels, technical skills and management requirements, consultant time and contracted services. |
| What **factors** may affect resource costs? | Factors may include the lead time before the project can be completed, the repair and servicing requirements of tools, equipment and machinery, hire and purchasing options, material, consultancy and service supply and pricing issues, work hours and staffing levels required, individual hourly rates, and other conditions in contractual and enterprise agreements. |

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| What sources may be consulted for **available information**? | Sources may include the supervisor, enterprise records, employment agencies, State and Federal awards, individual enterprise agreements, manufacturers, repairers, suppliers, contractors and consultants, catalogues and journals, industry Codes of Practice and legal guidelines. |
| What **add-on costs** may need to be considered? | Labour add-on costs may include State and Federal charges and taxes, training requirements, workers compensation levies, award-based penalty rates for work done out of regular hours, work with specified substances and in specified locations, leave entitlements and public holiday implications.<br>Resource add-on costs may include costs associated with materials quantities, ordering schedules and issues associated with urgency, imminence or duration of consultancy or contracted work to be provided. |
| What **tools and equipment** may be needed to cost a project? | Tools and equipment may include calculators, computer hardware, accounting or project management software, and telecommunication equipment. |
| What **adjustments** may be made to resource costs? | Adjustments may include identification of alternative resources, scheduling of resources and alternative resource quantities and pricing structures. |
| How may resource costs be **recorded**? | Costs may be recorded on printed schedules, in a project report and against the project plan. |
| What items may be included in the **financial summary**? | Items may include unit and itemised costs, total project costs, reconciliation with available finance, and financial justification for the selection and scheduling of individual resource items. |

For more information on contexts, environmental implications and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in costing a project requires evidence that a person is able to obtain

current prices for required resources, calculate costs and present a summary of project costs that provides for cost effective project outcomes. The skills and knowledge required to cost a project must be **transferable** to a different work environment, particularly where the specific costings relate to the other work environment. For example, this could include different projects, clients and industry settings.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Relevant State and Federal legislation, awards, enterprise agreements and management policies relating to labour hire and employment terms, and OHS.<br>• Current pricing structures and options for material supplies, services, contractors and consultants.<br>• Enterprise and industry standards and practices for formatting, organising and presenting financial and quantitative information. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Communicate and negotiate orally and in writing with staff, management, contractors, suppliers, manufacturers and consultants.<br>• Research and evaluate information.<br>• Accurately complete financial calculations, collate and organise quantitative and financial information.<br>• Comply with legislative requirements.<br>• Document financial summaries for the understanding of staff, managers and contractors. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency

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standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (1)** be applied? | Results of research and calculations should be communicated with the manager orally and in writing. There is likely to be negotiation between the trainee and the manager to achieve effective costing of the project. |
| 2. How can **information be collected, analysed and organised (1)**? | Pricing information will be gathered from various sources and analysed and adjusted against the project plan. Costing of the project should be organised and presented as a financial summary. |
| 3. How are **activities planned and organised (1)**? | The costing process should proceed in an orderly and efficient manner. Timely and appropriate information needs to be available for calculation and reconciliation. Project costing should reflect the requirements of the project works. |
| 4. How can **team work (1)** be applied? | Costing a project may involve working with other members of a team to achieve an effectively costed project. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematical concepts will be required to calculate, reconcile and summarise project costs. |
| 6. How can **problem-solving skills (1)** be applied? | Problems associated with availability of resources and pricing issues may arise during costing of the project and require the application of problem solving skills. |
| 7. How can the **use of technology (1)** be applied? | Technology will be required to record, store and communicate ideas and information. It will also be used to research relevant information, obtain and calculate data and produce a financial summary of the costs of the project. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for**

**consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC4908A Supervise work routines and staff performance

This competency standard covers the functions associated with the coordination and direction of staff. It requires the application of skills and knowledge to provide information and guidance to personnel in the conduct of their duties, facilitate staff discussions and agreements, and provide constructive evaluation to staff members. The work functions associated with this standard would usually be undertaken independently and with minimal reporting requirements.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Communicate work roles | 1.1 | **Roles and responsibilities** of staff are clearly defined and documented. |
| | | 1.2 | Skills of staff are accurately identified and matched with available tasks and duties. |
| | | 1.3 | Requirements of jobs are clearly identified and communicated to personnel. |
| | | 1.4 | Information on activities are developed and provided to personnel. |
| | | 1.5 | **OHS** policy and procedures are effectively communicated and implemented. |
| 2 | Coordinate activities | 2.1 | Work activities are prioritised to ensure completion of outcomes in accordance with available timelines. |
| | | 2.2 | Work plans are developed to establish appropriate targets and objectives of activities. |
| | | 2.3 | **Training and learning opportunities** are identified and incorporated into work activities. |
| | | 2.4 | Supervisory and reporting responsibilities are clear and maintained in line with organisational requirements. |
| | | 2.5 | Enterprise **environmental** policy and procedures are effectively communicated |

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| | | | and implemented. |
| 3 | Maintain effective working relations | 3.1 | Problems are recognised and addressed through discussion with work group. |
| | | 3.2 | Assistance is sought from work group members when difficulties arise in achieving allocated tasks. |
| | | 3.3 | Discussion and information sharing is routinely used to communicate requirements of work activities through a participative approach. |
| | | 3.4 | Disagreements and conflicts are managed constructively using appropriate conflict management strategies. |
| 4 | Provide feedback | 4.1 | Feedback is clear, constructive and provided promptly to individuals to support achievement of outcomes. |
| | | 4.2 | **Difficult situations** are identified and negotiated to achieve results in line with organisational requirements. |
| | | 4.3 | Team and individual performances are monitored regularly to ensure personnel are able to achieve goals. |
| | | 4.4 | **Supervisory structures** and lines of reporting are maintained in accordance with organisational requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work contexts.

| | |
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| How might staff **roles and responsibilities** be defined and communicated? | Duty statements, workplans, defined areas of decision-making, job description and employment arrangements, team structures, supervision and accountability requirements, and enterprise policy compliance. |

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| What **OHS** requirements may be applicable to this standard? | Systems and procedures for the safe operation and maintenance of machinery and equipment.<br>• Assessment of hazards and appropriate control measures.<br>• Procedures for safe lifting, carrying and manual handling. |
| | • Safe systems and procedures for the handling and storage of hazardous substances, and grain.<br>• The appropriate use, maintenance and storage of personal protective clothing and equipment.<br>• Accident/incident investigation.<br>• Working at heights and confined spaces.<br>• Safe systems and procedures for outdoor work, basic first aid procedures.<br>• Personal hygiene standards.<br>• Protection from hazardous noise.<br>• Mechanical vibration. |
| What **training and learning opportunities** might be identified for staff? | Coaching, mentoring and/or supervision, formal and informal learning programs, internal and external training, provision of work experience and exchange opportunities, personal study and career planning and development, performance appraisals, workplace skills assessment, recognition of prior learning, and self assessment. |
| What positive **environmental** practices associated with work activities may be implemented? | Measures to reduce excessive noise and exhaust emissions, the safe use and disposal of hazardous substances and debris associated with machinery and equipment, effective water re-use systems and effluent disposal systems, the incorporation of organic matter into the soil, and measures to avoid soil disturbance associated with machinery operation and the protection of ground cover in holding or confined areas with high density animal activity. |

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| What **difficult situations** might arise for negotiation? | Conflicts in priorities, resource constraints, lack of information, supplier delays, differences in opinion, interpersonal conflict, hazardous events, time constraints, and shortfalls in expected outcomes. |
| What **supervisory structures** might be relevant to this standard? | Coach/mentor, supervisor or manager, and work colleagues. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence to supervise work routines and staff performance requires evidence of the ability to implement roles and responsibilities to efficiently and effectively achieve work activities within set timeframes. It involves the ability to communicate information and instructions, prioritise and schedule work activities, determine and implement training requirements, evaluate staff performance, and provide constructive feedback. Evidence must be demonstrated in providing leadership to the work team and the ability to promote and maintain effective relationships between staff.

The skills and knowledge required must be **transferable** to a different work environment. For example, this could include different workplaces, industries or work teams.

| | |
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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Enterprise personnel processes.<br>• Enterprise organisational structure and responsibilities.<br>• Techniques for building trust and relationships.<br>• Principles of team work and negotiation.<br>• Performance appraisal systems and procedures.<br>• Principles of time management.<br>• Conflict management techniques.<br>• Enterprise training requirements and processes. |

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| | • Relevant State/Territory legislation, regulations and Codes of Practice with regard to workplace OHS, environmental protection, and the use and control of hazardous substances and machinery and equipment.<br>• Hazard identification, assessment and control. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These include the ability to:<br>• Supervise and instruct staff to achieve work activities.<br>• Delegate and allocate tasks.<br>• Assess and evaluate staff competency.<br>• Identify and provide training requirements.<br>• Plan and monitor ongoing training needs.<br>• Plan timesheets and timetables to meet deadlines.<br>• Demonstrate effective time management.<br>• Demonstrate safe workplace and environmentally responsible practices.<br>• Solve problems (staffing, resources).<br>• Communicate information and instructions, provide feedback and prepare reports and performance appraisals.<br>• Calculate timesheets and measure productivity. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Information with regard to work tasks, their application and completion date may be communicated to staff. |
| 2. How can **information be collected, analysed and** | Information with regard to staff performance may be observed and monitored and included |

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| | **organised (3)**? | in feedback via staff performance appraisals. |
| 3. | How are **activities planned and organised (3)**? | Training activities may be planned and coordinated around work schedules or sequenced as required. |
| 4. | How can **team work (3)** be applied? | Team work may be applied in methods and procedures to complete work tasks to achieve work plan requirements. |
| 5. | How can the use of **mathematical ideas and techniques (3)** be applied? | Mathematical techniques may be applied in the calculation of time sheets and the measurement of production outputs. |
| 6. | How can **problem-solving skills (3)** be applied? | Staffing or resource problems may require alternative options to be implemented or may be addressed through adjustments to work schedule. |
| 7. | How can the **use of technology (3)** be applied? | To communicate job tasks, develop staff training programs, measure productivity, and record staff performance appraisals. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is critical information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

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# RTC4911A Operate within a budget framework

This competency standard covers the process of operating within an allocated cash flow budget in a rural, horticultural or land management setting. It requires the ability to participate in formulation of a budget, and supervise and monitor financial transactions. Operating within a budget framework requires knowledge of banking routines, record keeping systems for receipts and expenditure, cash flow analysis, and costing and forecasting mechanisms.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Participate in formulation of a cash flow **budget** | 1.1 | Budget consultation is followed in line with enterprise policy. |
| | | 1.2 | Budget variations are requested to suit enterprise needs. |
| 2 | Supervise financial transactions | 2.1 | Expenditure is arranged within budget delegations. |
| | | 2.2 | Transactions are **recorded** to meet taxation and accounting requirements according to enterprise practices. |
| | | 2.3 | Actual sales and expenditure are compared to the enterprise budget. Financial reports are checked to ensure operations are within forecast limits. |
| | | 2.4 | Expenditure is adjusted to meet financial targets as required. |
| | | 2.5 | Actual and potential variations in budgeted income are reported to the manager according to enterprise requirements. |
| | | 2.6 | Recommendations to address budget variations are developed. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

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| What may be included in **budgets**? | Budgets may include projected expenditure by item, projected income by source, cash flow budgets, budget delegations, variation and review procedures, credit and credit limits, security measures, reporting mechanisms, additional funds for particular projects, self-generated funds, fundraising requirements, project grants, funds received for winning tenders, and enterprise procedures and policies. |
| How may **financial reports** be checked? | Through comparisons between planned cash flow and actual budget cash flow, and similar statements from previous planning periods. |
| What types of **records** may be relevant to this standard? | Records may be paper or computer based, or enterprise accounting system |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in operating within a budget framework requires evidence that contributions have been made to the formulation of a budget, that an individual has operated successfully within the framework of that budget, and that required reporting complies with industry and enterprise standards and expectations. The skills and knowledge required to operate within a budget framework must be **transferable** to a range of work environments and contexts. For example, this could include different budgets, workplaces and reporting mechanisms.

| | |
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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Costing mechanisms.<br>• Forecasting mechanisms.<br>• Banking routines.<br>• Cash flow analyses and records.<br>• Recording systems.<br>• Records of receipts and expenditure. |

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| | • Work reports.<br>• Factors that impact upon the timing of sales and purchases (Taxation, GST, market conditions). |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Participate in formulation of a budget.<br>• Supervise financial transactions. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Through discussions and meetings with management and staff in budget formulation and as a result of any operating issues. |
| 2. How can **information be collected, analysed and organised (3)**? | To enable inputs into the budget formulation process, and record keeping according to procedures established by the enterprise. |
| 3. How are **activities planned and organised (3)**? | In line with enterprise procedures and policies. |
| 4. How can **team work (2)** be applied? | Through participating in budget formulation. |
| 5. How can the use of **mathematical ideas and techniques (3)** be applied? | In undertaking budget calculations and financial transactions |
| 6. How can **problem-solving skills (3)** be applied? | Through dealing with issues such as budget shortfalls or excesses. |
| 7. How can the **use of technology (3)** be applied? | Through the use of computers in operating a budget and reporting. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

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For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

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# RTC5011A Collect and classify plants

This competency standard covers the process of collecting and identifying plants using taxonomic keys. It requires the ability to prepare for plant collecting, collect plant specimens, preserve specimens and identify plant specimens. Collecting and identifying plants requires knowledge of herbarium collection techniques and ethics, botany, physical and biological habitat types, and plant nomenclature and taxonomy.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for plant collecting | 1.1 | Purpose and objectives for collecting **range of plants** is confirmed. |
| | | 1.2 | Area, location and/or habitat for collecting is defined. |
| | | 1.3 | **Resources** to assist in plant location and identification are determined and prepared. |
| | | 1.4 | **Equipment** required for collecting and preserving specimens is determined and prepared. |
| | | 1.5 | Licences and/or permission to collect specimens are sought from landowner or managing agency. |
| | | 1.6 | Range of likely operating conditions, hazards and difficult/sensitive environments are assessed for impact on collecting and preserving specimens. |
| | | 1.7 | **OHS hazards** associated with plant collecting are identified. |
| 2 | Collect plant specimens | 2.1 | **Collecting ethics** are observed when selecting specimens for picking. |
| | | 2.2 | **Relevant information** about the specimen, its characteristics and **occurrence** is entered into a field note book and location coordinates are noted. |
| | | 2.3 | Specimen collected provides **adequate material** for identification and preserving. |
| | | 2.4 | Specimens are correctly tagged and stored for later identification. |

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| | | 2.5 | Appropriate **OHS legislative requirements** and work practices are followed. |
| 3 | Preserve specimens | 3.1 | Preservation of specimen is undertaken while still fresh. |
| | | 3.2 | Specimen is cleaned and prepared for preserving according to enterprise guidelines. |
| | | 3.3 | Preserving of specimen carried out using either pressing or drying techniques. |
| | | 3.4 | Dried specimen is mounted and labelled with accurate information from notebook. |
| 4 | Identify plant specimens | 4.1 | Resources are identified and accessed to assist in identification. |
| | | 4.2 | The **basic characteristics** of a plant are identified and **documented.** |
| | | 4.3 | Relevant plant key is used to identify plant. |
| | | 4.4 | Plant **identity** is confirmed against botanical description of species. |
| | | 4.5 | Plant identity is documented on label according to enterprise guidelines. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in particular training and assessment requirements may depend on the work situations available.

| | |
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| What **range of plants** may be relevant to this standard? | Plants may be native or introduced species including weeds. |
| What **resources** may be used to identify plants? | Resources may include enterprise or public library, business and research organisation websites, enterprise supervisor and experienced team colleagues, published books and journals (e.g., floras), and experts in the local area or industry sector. It may also include personal or enterprise reference collection. |

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| What **equipment** may be used to recognise plants? | Equipment may include computer assisted or manual word processors, telecommunication appliances, plant fixing materials, secateurs, folders and exercise books, hand lens, dissecting microscope, dissecting equipment, pens and pencils. |
| What **OHS hazards** can be included in this standard? | Hazards may include manual handling, using tools and equipment, noise, dust, solar radiation, falls and tripping, spider and insect bites. |
| What **collecting ethics** should be observed in the field? | Collecting ethics requires that, where necessary, no plant is collected from where it is prohibited, approval is gained from the landholder and/or permits are obtained to remove plants where required, that disruption to the site and surrounding vegetation and habitats is minimised, and that there is appropriate justification to collect less common or rare plant specimens from a site. |
| What may be included when documenting a plants **occurrence** in natural areas? | Height, canopy cover, dominant species and distribution of associated vegetation association and/or plant community, and habitats and preferred habitat/s in which plant grows. |
| What **relevant information** will need to be entered into field note books? | Information that<br>1 identifies the particular specimen by number, when it was collected and the collectors name.<br>2 describes the plant itself such as size, life form, flower colour, bark colour and any other characteristics about the plant.<br>3 outline the location of the plant specimen - this may require use of maps and recording of nearby landmarks.<br>4 describes the ecological characteristics of the area including the physical habitat such as type of soil, rocks, slope, elevation, aspect, moisture, and biological habitat such as vegetation structure, plant community/vegetation association and other nearby plants. |

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| What is regarded as **adequate material** when collecting? | Adequate material includes all the parts needed for accurate identification and can include leaves, flowers, twigs, fruit, and seeds. For small herbaceous plants, the roots and either whole stems or tops and bottoms as leaf shape, size, and arrangement may vary from top to bottom.<br>Plant materials should be tagged with a number as they are collected. |
| What **OHS requirements** may be relevant to this standard? | OHS requirements may include identifying hazards, assessing risks and implementing controls, cleaning, maintaining and storing tools, equipment and machinery, appropriate use, maintenance and storage of PPE including sun protection, safe operation of tools, equipment and machinery, safe handling, use and storage of chemicals, correct manual handling, basic first aid, and safety procedures for protection of others. |
| What **basic characteristics** may be useful when identifying plants? | Plant characteristics may include the flower type, leaf arrangement and leaf shape. Other characteristics include flower colour, colours and/or markings, flower shape, size of the plant and its flowers and leaves, veining pattern of the leaves, texture of the leaves and stem, physical and biological habitat from where collected, number, size and shape of the reproductive parts, and any unusual features about the plant or its parts. |
| What nomenclature will be used to indicate a plants **identity**? | Scientific names including authorship will be used in identification of plants. |
| What **documentation** is involved in identifying plants? | Documentation may include a written description of the plant species including common and botanical names, visible characteristics, details of occurrence or origin, optimum growth requirements and/or a herbarium of plant samples preserved according to the requirements of the enterprise or industry sector. |
| For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet. | |

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in identifying plants requires evidence that a person can collect and identify plants correctly using taxonomic keys. The skills and knowledge required to identify plants must be **transferable** to a different work environment. For example, this could include different types of plants, workplace settings and environments.

| | |
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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Herbarium collection techniques and ethics.<br>• Botany.<br>• Physical and biological habitat types (including vegetation associations and communities where appropriate).<br>• Plant nomenclature and taxonomy.<br>• OHS legislative requirements and Codes of Practice.<br>• Hazard identification assessment and control. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Prepare for plant collecting<br>• Collect plant specimens<br>• Preserve specimens<br>• Identify plant specimens.<br>• Follow safe work practices. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Ideas and information relating to plant identification can be recorded in field note books and discussed with colleagues. |
| 2. How can **information be collected, analysed and organised (3)**? | According to current recommended botanical practices and with regard to collecting ethics. |
| 3. How are **activities planned and organised (3)**? | Equipment, materials and work procedures for identification will need to be sourced and arranged before collection activities. |
| 4. How can **team work (2)** be applied? | Plant identification may involve working with other members of a team to complete the program, or working alone. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Measuring the length, regularity and period of plant identifying features will require mathematical application. |
| 6. How can **problem-solving skills (1)** be applied? | Problems relating to the difficulty of identifying certain features of a plant or using a taxonomic key may arise. |
| 7. How can the **use of technology (1)** be applied? | Technology may be applied in the identification and electronic recording of plants, research procedures and telecommunication used for the provision of information about plants to clients and customers. |

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**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC5303A Manage machinery and equipment

This competency standard covers the functions involved in managing the maintenance and operation of machinery and equipment. It requires the application of skills and knowledge necessary to review and evaluate machinery and equipment operations as well as scheduling and monitoring maintenance requirements. In addition, it requires the ability to cost the productivity of machines and ensure the safe operation of equipment within enterprise environmental guidelines. The work will be carried out independently within own area of responsibility.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Evaluate machinery and equipment | 1.1 | Operations of available **machinery and equipment** are reviewed and matched to production processes and OHS requirements. |
| | | 1.2 | Operation and servicing costs of machinery and equipment are calculated to justify total purchasing price. |
| | | 1.3 | Productivity returns from machinery and equipment are estimated to identify benefit to production processes. |
| | | 1.4 | Machinery and equipment replacement cycles are monitored to identify improvement options and maximise life cycles of components. |
| | | 1.5 | Machinery and equipment is accessed through appropriate **procurement options.** |
| 2 | Coordinate maintenance | 2.1 | Maintenance and service cycles are identified and scheduled to ensure servicing is according to manufacturers specifications and production processes. |
| | | 2.2 | **Storing and housing** of machinery and equipment is costed and organised. |
| | | 2.3 | Maintenance is documented and recorded to ensure operational and service history. |
| | | 2.4 | **OHS hazards** in the workplace are identified, risk assessed and recorded according to enterprise requirements. |

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| | | 2.5 | Suitable **personal protective equipment** is selected, used, maintained and stored according to **OHS requirements.** |
| | | 2.6 | Repair and maintenance routines are developed and monitored according to manufacturers specifications and OHS requirements. |
| 3 | Monitor operations | 3.1 | **Consumables and operational support materials** are available, maintained and disposed of according to **enterprise requirements.** |
| | | 3.2 | **Environmental implications** and workplace safety practices are monitored according to **OHS** and enterprise requirements. |
| | | 3.3 | Operational procedures are clear, documented and followed according to manufacturers specifications. |
| | | 3.4 | Operators are provided with competent instruction and appropriate supervision according to OHS requirements. |

## Range of Variables

The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.

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| What **machinery and equipment** may be applicable to this standard? | Hydraulic equipment, agricultural and horticultural machinery and equipment, engines, irrigation equipment, earth moving equipment, spraying equipment, solar and wind powered equipment, lifting/elevated equipment, all vehicles/motorcycles, all types of park and turf maintenance machinery and equipment. |
| What **hazards** may be associated with these activities? | Workplace hazards may include exposure to loud noise and fumes, solar radiation, dust, and hazardous substances. It may also include oil and grease spills, electricity, mechanical malfunctions and entanglement with machinery and equipment from exposed moving parts including hydraulics. |

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| What **personal protective equipment** may be relevant to this standard? | This may include boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or face mask, and sun protection (sun hat, sunscreen). |
| What **OHS** requirements may be relevant to this standard? | Safe systems and procedures for:<br>• operating and maintaining machinery and equipment including hydraulics and guarding of exposed moving parts.<br>• hazard and risk control.<br>• manual handling including lifting and carrying.<br>• the provision of safety decals and signage.<br>• handling, application and storage of hazardous substances.<br>• outdoor work including protection from solar radiation, dust and noise.<br>• lock out or danger tag procedures.<br>• protection of people in the workplace.<br>• the appropriate use, maintenance and storage of personal protective clothing and equipment. |
| What **procurement options** may be considered? | Leasing, hiring, hire purchase, purchasing, share/part-purchasing, renting, and barter. |
| What **storing and housing** options may be considered? | On site, off site, seasonal, covered, open air, security and protected. |
| What **consumables and operational support materials** may be used and maintained? | Fuel, oils, lubricants, and battery levels. Wheels, tyres, fan belts, leads, lines, connections, and air filters. |
| What **enterprise requirements** may be applicable to this standard? | Standard Operating Procedures (SOP), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes, minimising downtime, product labels, manufacturers specifications, operator's manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and OHS procedures. |

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| What **environmental implications** may be associated with machinery and equipment operation? | Negative environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oil containers, chemical residues), and hazardous substances (fuel, fertiliser). Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities, soil disturbance and dust problems from machinery and equipment operation. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence to manage machinery and equipment requires evidence of the ability to examine the specific needs of the production process and assess the applicability of specific kinds of machinery and equipment to these processes. It also requires the ability to conduct detailed testing and evaluation of the machinery and equipment. Evidence must be demonstrated in the employment of safe workplace practices including the elimination of occupational health and safety hazards, and an awareness of enterprise environmental practices to minimise negative impact. The skills and knowledge required to manage machinery and equipment must be **transferable** to a different work environment. For example, this could include different machinery and equipment, workplaces and industry sectors.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Servicing and maintaining machinery and equipment within area of responsibility.<br>• Methods of calculating the cost of machines and their contribution.<br>• Training and instruction techniques for directing the learning of staff.<br>• Relevant OHS issues, legislative requirements and Codes of Practice.<br>• Hazard identification, assessment and control.<br>• Environmental Codes of Practice with regard to maintenance of machinery and equipment and hazardous substances. |

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| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required.<br>These include the ability to:<br>• Monitor machinery and equipment operations.<br>• Identify and remove potential workplace hazards.<br>• Evaluate machinery and equipment.<br>• Identify skill needs of staff.<br>• Keep records, including machine maintenance histories.<br>• Use written and oral information about workplace requirements.<br>• Plan and organise work arrangements.<br>• Communicate orally, document plans and write reports for staff and management.<br>• Calculate resources, machinery and equipment and servicing costings.<br>• Identifying, assessing and controlling hazards. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Ideas and information with regard to maintenance requirements and costings may be discussed with staff and suppliers. |
| 2. How can **information be collected, analysed and organised (3)**? | Information with regard to the performance of machinery and equipment, faults and maintenance requirements, may be reported and organised by records. |
| 3. How are **activities planned and organised (3)**? | Activities involving managing maintenance requirements may be planned and coordinated with staff and work schedules. |
| 4. How can **team work (3)** be applied? | Team work may be applied in methods and procedures to monitor and carry out machinery and equipment maintenance. |

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| 5. How can the use of **mathematical ideas and techniques (3)** be applied? | Mathematical techniques may be applied in the calculation and measurement of volumes, weights and consumption particularly in relation to servicing requirements. |
| 6. How can **problem-solving skills (3)** be applied? | Equipment breakdown, faults or malfunctions will need to be arranged for repair or replacement to complete maintenance plan requirements. |
| 7. How can the **use of technology (3)** be applied? | To access, communicate, monitor, measure and record information with regard to machinery and equipment maintenance, usage and performance. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC5702A Develop and manage a chemical use strategy

This competency standard covers the process of developing, implementing and managing a chemical use strategy. High level skills include risk analysis, risk control, risk management, use of Integrated Pest Management, Integrated Resistance Management, Animal Health Management and communication are required. Extensive knowledge of equipment and its use, legislation, regulations and safety procedures associated with chemical use is also needed.

NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Identify and evaluate need for chemical use | 1.1 | Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) strategies are interpreted and the organisational chemical requirements are identified. |
| | | 1.2 | **External requirements** for chemical use are identified and relevant information obtained and interpreted. |
| | | 1.3 | Requirements for chemical use are **documented.** |
| | | 1.4 | **Chemicals** available to meet requirements are identified and **information** concerning their application is reviewed. |
| 2 | Develop a chemical use risk management strategy | 2.1 | **Hazards** in the transportation, storage and handling of chemicals are identified and assessed. |
| | | 2.2 | **Risk factors** associated with the use of chemicals are identified and documented. |
| | | 2.2 | **Risk control measures** are identified and developed in accordance with regulatory requirements. |

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| | | 2.4 | A risk management strategy for chemical use is developed in accordance with **legislation** and Integrated Pest Management, Integrated Resistance Management, and Integrated Animal Health Management principles. |
| | | 2.5 | Appropriate insurance policies covering intended chemical use are researched and documented according to enterprise guidelines. |
| 3 | Develop and implement procedures for chemical management and use | 3.1 | **Procedures** for management and use of chemicals are developed in accordance with **directions and standards**. |
| | | 3.2 | Required precautions and risk control measures are documented. |
| | | 3.3 | Procedures for communicating and negotiating with the community are developed. |
| | | 3.4 | Information on procedures and precautions in the management and use of chemicals is distributed to relevant staff. |
| 4 | Identify training and supervision needs and solutions for chemical use in the workplace | 4.1 | An appropriate strategy is developed for the **training, assessment** and supervision of staff involved in chemical use including correct use/fit of personal protective equipment. |
| | | 4.2 | Suitable internal on-the-job training and monitoring of performance in the implementation of the chemical use strategy is organised and provided. |
| | | 4.3 | Appropriate external training and assessment in the management and use of chemicals is organised. |
| 5 | Monitor and evaluate the implementation of a chemical use strategy | 5.1 | The implementation of the established chemical use strategy is monitored in terms of regulatory requirements and established **criteria**. |
| | | 5.2 | The effectiveness of the established |

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| | chemical use strategy is evaluated. |
| 5.3 | Appropriate action is initiated where there are identified problems or where required procedures/precautions are not being correctly followed. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

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| What are **external requirements** for chemical use? | Chemical use regulations and legislation, best practice systems, mandatory Codes of Practice, chemical manufacturers instructions, labels and Material Safety Data Sheets (MSDS). |
| How might chemical use be **documented?** | Using computer records, log books, calendars or journals. |
| What **chemicals** may be considered for use? | Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, biologicals, nematacides, rodenticides, fumigants, antimicrobial agents, anthelmintics, hormone growth promotants, or a range of veterinary chemicals used to treat animals for disease. |
| What **information** may be relevant to chemical application? | Information may include labels, MSDS, operator's manuals, industry standards, OHS manual or hazardous substances regulation. |
| What **hazards** may occur in the transportation, storage, handling and use of chemicals? | Hazards will be listed on labels and the MSDS for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage, or residues in foods. |

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| What **risk factors** may be relevant to this standard? | Risks to environment may include pollution of ground or surface waters, damage to habitats, damage to sensitive land, or damage to community amenity due to spray drift.<br>Risks associated with the produce include chemical residue in plant produces, livestock or water.<br>Risks associated with OHS include exposure to chemicals during handling and application, and public health risks. |
| What **risk control measures** may need to be applied in the transportation, storage, handling and use of chemicals? | Measures may include providing instructions for handling, transport, storage, obtaining appropriate insurance policies, application and disposal of chemicals in the workplace, ensuring workers read and follow instructions on product label and MSDS, ensuring use, maintenance and storage of correct personal protective equipment, training and accreditation of all staff using chemicals, and ensuring all staff using a chemical understand the specific risks involved and the associated precautions required. |
| What **legislation and regulations** may be relevant to this standard? | Legislation may include Pesticide Acts, OHS Acts regarding hazardous substances and application equipment, Dangerous Goods Act, Poisons Act, or Protection of the Environment Acts. |
| What **procedures** may need to be addressed in a chemical use management strategy? | Procedures may include identifying needs for specific chemical use as part of IPM/IRM, reading and interpreting product labels and MSDS, mixing chemicals, calibration of application equipment, application of specified products, disposal of unused product, checking, maintenance, repair and disposal of equipment and containers, procedures and precautions for transport and storage, emergency procedures in event of spillage, contamination, accidental contact or ingestion, procedures for keeping records (e.g., chemical inventory, details of chemical use), training and assessment strategy for staff. |

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| What **directions and standards** may be relevant to this standard? | Directions and standards may include a risk management strategy, registration requirements and IPM/IRM strategies. |
| What **training and assessment strategies** may need to be established as part of chemical use management? | **Internal** training may include on-job coaching and instruction by qualified trainers, performance appraisal by supervisors, training programs conducted in the workplace by contracted registered training organisations.<br>**External** training and assessment options may include training programs conducted by registered training organisations, or workshops organised by registered training organisations. |

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| What **criteria** may be established to evaluate chemical use strategy? | Criteria may include monitoring pest levels over time from an established benchmark. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Overall competence in this standard requires evidence that a person can identify and consider the requirements for chemical use at a workplace and develop a chemical use management strategy based on a consideration of the available suitable chemicals, and the hazards and risks in their use. The evidence will demonstrate that the person has an understanding of a range of chemicals and the factors that need to be taken into account when carrying out a risk management analysis.

Evidence will include a chemical use management strategy that details chemical use requirements, details of selected chemicals (including specific identification and justification for chemicals selected), any special accreditation requirements for the use of any chemicals identified in the strategy, procedures and precautions for the transport, storage, handling and application of the identified chemicals including disposal of unused product, emergency procedures including first aid and reporting requirements, training or assessment arrangements and record keeping arrangements.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency |

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standard are listed below:

- Hazards to human health, agricultural produce, and all aspects of the environment and non-target species of flora and fauna associated with the transport, storage, handling, application and disposal of chemicals.
- Factors that contribute to spray drift, measures to assess the potential for spray drift and prevent or control its occurrence, and the elements of a spray drift management strategy.
- Routes of entry of chemicals into the body and the implications of this on chemical use management strategies.

- Safety procedures including the maintenance, use, fit and decontamination of personal protective clothing and equipment.
- Influence of meteorological factors (temperature, humidity, rain) on quality of chemical application, drift potential, effectiveness and efficacy of use.
- Precautions and risk control measures that may be used to minimise risks and hazards associated with the use of chemicals.
- Principles of IPM/IRM/IAM and their benefits in terms of chemical use risk management.
- Emergency procedures for safety incidents involving chemicals.
- Requirements and options for the keeping of records on chemical use and equipment maintenance and repair.
- Principles of residue effects and their management including persistence in soil and water, accumulation in agricultural produce, rate of breakdown of residues in produce and in the environment, withholding periods, and ways in which residues can occur.
- Movement of and persistence and degradation of different types of chemicals in various areas of the environment such as soil, air and water.
- Industry waste agreements, for example drum

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| | MUSTER, and Chem Collect<br>• OHS legislative requirements and Codes of Practice.<br>• Appropriate insurances covering chemical use, transportation and storage.<br>• Correct wearing/fit of personal protective equipment.<br>• Use of chemicals as part of a comprehensive Quality Assurance (QA) system, Industry QA programs and performance standards. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Accurately read and interpret labels on chemicals and MSDS.<br>• Determine the level of hazard and risk associated with chemical use in terms of human health, environment, fauna, flora and produce.<br>• Apply risk management techniques.<br>• Develop and evaluate management plans and organisational procedures.<br>• Communicate management plans, strategies and procedures to staff. |

### What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can **communication of ideas and information (3)** be applied? | Informing staff about the details of a chemical use management strategy will involve high level communication processes. |
| 2. How can **information be collected, analysed and organised (3)**? | Identifying and analysing need for chemical use in a workplace. Accessing and interpreting information on chemicals, |

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| | regulations and MSDS. |
| 3. How are **activities planned and organised (3)**? | Carrying out a risk management analysis on chemical use in a workplace requires multiple activities to be organised. |
| 4. How can **team work (3)** be applied? | Working with staff to ensure that a chemical use strategy fulfils the organisations needs, e.g., through health and safety meetings. |
| 5. How can the use of **mathematical ideas and techniques (3)** be applied? | Carrying out calculations required in chemical use management strategies, e.g., chemical mixture calculations. |
| 6. How can **problem-solving skills (3)** be applied? | Identifying risks and potential problems associated with chemical use and developing solutions. |
| 7. How can the **use of technology (3)** be applied? | Developing effective strategies for the maintenance, calibration and use of chemical application equipment. |

**What are the special assessment conditions for this competency standard?**

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body.

This may include:

1. Accreditation with that issuing body.
2. Maintenance of current competency in this competency standard.
3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTC5913A Collect and manage data

This competency standard covers the process of collecting, analysing and managing data. It requires the ability to determine the type and extent of data to be collected, access and collate data, evaluate data, manage, analyse and retrieve data. Collecting and managing data requires knowledge of data collection techniques and procedures, data recording and evaluation techniques, data analysis and data storage and retrieval methods.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Determine the type and extent of data to be collected. | 1.1 | Data requirements are clearly defined and communicated to all staff involved in data collection. |
| | | 1.2 | Relevant data sources are identified. |
| | | 1.3 | Type and extent of data required is clearly defined. |
| | | 1.4 | **OHS hazards** associated with data collecting are identified |
| | | 1.5 | Data collection methods and techniques are clearly defined relative to data requirements |
| 2 | Access and collate data | 2.1 | Data collection sheets are formatted to assist collection. |
| | | 2.2 | Data is researched and/or collected from field sources according to enterprise guidelines and with standard research approaches. |
| | | 2.3 | Data is collated by appropriate electronic means. |
| | | 2.4 | Appropriateness of data is monitored and recorded during collection. |
| | | 2.5 | Information is researched using appropriate methods and technologies. |
| | | 2.6 | Sources of information are regularly reviewed for usefulness, validity, reliability and cost. |
| | | 2.7 | Channels and **sources of information** are used effectively. |

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| | | 2.8 | Opportunities are taken to establish and maintain contacts with those who may provide useful information. |
| | | 2.9 | Appropriate **OHS requirements** and work practices are followed |
| 3 | Evaluate data | 3.1 | Data collected is relevant, valid and sufficient. |
| | | 3.2 | Where data is unclear or difficult to interpret, clarification and assistance is sought. |
| | | 3.3 | Where data is inadequate, additional data is obtained. |
| | | 3.4 | Information is anlysed for its validity and reliability. |
| 4 | Manage and retrieve data | 4.1 | Data is **stored** by appropriate electronic means. |
| | | 4.2 | Data is presented using appropriate graphical aids and techniques |
| | | 4.3 | Data is assembled and provided to the manager/client as required and in accordance with standard research approaches. |
| | | 4.4 | Data is retrieved as required. |
| | | 4. 5 | New methods of **recording** and storing data are suggested/introduced as needed. |
| 5 | Analyse and interpret data | 5.1 | Data is analysed using appropriate statistical and analytical techniques |
| | | 5.2 | Data is interpreted to determine its significance, validity and reliability. |
| | | 5.3 | Findings based on the analysis and interpretation of the data is reported |
| | | 5.4 | Data is organised into a suitable report format to aid decision-making. |
| | | 5.5 | Conclusions drawn are based on reasoned argument and appropriate evidence. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

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| What may be included in **sources of information**? | Data may be based on primary and secondary sources including field work and trials, research materials, published books, academic reports, industry reports, colleagues, computer software, internet, newspapers, photographic data, journals, industry publications, industry specialists and experts. |
| What **OHS hazards** can be included in this standard? | Hazards may include manual handling, using tools and equipment, noise, dust, solar radiation, falls and tripping, spider and insect bites. |
| What **OHS requirements** may be relevant to this standard? | OHS requirements may include identifying hazards; assessing risks and implementing controls; cleaning, maintaining and storing tools, equipment and machinery; appropriate use, maintenance and storage of PPE including sun protection; safe operation of tools, equipment and machinery; correct manual handling; basic first aid; and safety procedures for protection of others. |
| What methods of information **storage** may need to be accessed? | Methods of information storage may include hard copy files, electronic databases, spreadsheets, file systems, and library collections. |
| What types of **recording techniques** may be relevant to this standard? | Recording techniques may include written, audio, video, photographic and computers. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in collecting, analysing and managing data requires evidence that an individual has sourced, collected, analysed and evaluated data according to industry and enterprise standards and expectations. The skills and knowledge required to collect, manage and analyse data must be **transferable** to a range of work environments and contexts. For example, this could include different workplaces, types and sources of data, and reporting mechanisms.

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| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Data collection techniques and procedures.<br>• Data recording and evaluation techniques.<br>• Data analysis and interpretive techniques<br>• Data storage and retrieval methods.<br>• Data reporting methods. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Determine the type and extent of data to be collected.<br>• Access and collate data.<br>• Evaluate data.<br>• Manage and retrieve data.<br>• Analyse the data<br>• Interpret the data<br>• Follow safe work practices. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Through recording and presenting data to clients and enterprise personnel. |
| 2. How can **information be collected, analysed and organised (3)**? | Through identification of sources of information, and retrieval, analysis and collation of data. |
| 3. How are **activities planned and organised (3)**? | In accordance with standard research approaches in line with enterprise procedures and policies. |
| 4. How can **team work (2)** be applied? | Through participating in reviews, collaboration with colleagues and the evaluation of data. |
| 5. How can the use of **mathematical ideas and techniques (3)** be applied? | In compiling, analysing and evaluating data. |
| 6. How can **problem solving skills (3)** be applied? | Through dealing with inconsistencies in data, and difficulties in obtaining and collecting valid data. |
| 7. How can the **use of technology (3)** be applied? | Through the use of computers in sourcing, analysing, collating, reporting and storing data |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTC5914A Prepare reports

This competency standard covers the process of preparing comprehensive reports for a rural, horticultural or land management setting. It requires the ability to research material, evaluate information, produce a document, and deliver an oral presentation. Preparing reports requires knowledge of information and research sources, report structure and presentation, and public presentation techniques and approaches.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Research material | 1.1 | Topic of the report is identified and described. |
| | | 1.2 | **Sources of information** are determined. |
| | | 1.3 | Information appropriate to the task is collected and organised according to enterprise standards. |
| 2 | Evaluate information | 2.1 | Information collected is relevant and sufficient to provide a full report. |
| | | 2.2 | Where information is unclear or difficult to understand, clarification and assistance is sought. |
| | | 2.3 | Where available information is inadequate, additional information is obtained. |
| | | 2.4 | Information is assessed for its validity and reliability, and is organised into a suitable form to aid decision-making. |
| | | 2.5 | Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence. |
| 3 | Produce a document | 3.1 | Language is applicable to the task and audience. |
| | | 3.2 | The document is organised logically, is structured and balanced according to purpose, audience and context. |
| | | 3.3 | The document is formatted and presented according to business and enterprise standards. |
| | | 3.4 | Conclusions reached reflect the stated objectives of the report. |

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| | | 3.5 | Preparation is completed within the specified timeframe. |
| | | 3.6 | Enterprise and **OHS requirements** and procedures are followed. |
| 4 | Deliver an oral presentation | 4.1 | Language is applicable to the task and audience |
| | | 4.2 | Presentation is organised logically, is structured and balanced according to purpose, audience and context. |
| | | 4.3 | Concise and well presented support materials are used in oral presentations to reflect industry standards. |
| | | 4.3 | Efficient time use allows clear presentation of the desired topic. |
| | | 4.4 | Oral presentation is delivered within a specified time |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What may be included in **sources of information**? | Sources of data may include field work, research materials, published books, academic reports, industry reports, colleagues, computer software, internet, newspapers, journals, industry publications, industry specialists and experts. |
| What **OHS requirements** may be relevant to this standard? | OHS requirements may include identifying hazards, assessing risks and implementing controls, cleaning, maintaining and storing equipment, appropriate use, maintenance and storage of PPE including sun protection, safe operation of equipment, correct manual handling, basic first aid, and safety procedures for protection of others. |
| For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet. | |

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in preparing reports requires evidence that an individual has prepared and presented a report according to industry and enterprise standards and expectations. The skills and knowledge required to prepare reports must be **transferable** to a range of work environments and contexts. For example, this could include different workplaces, subject matter, and reporting formats.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Information and research sources.<br>• Report structure and presentation.<br>• Public presentation techniques and approaches. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Research material.<br>• Evaluate information.<br>• Produce a document.<br>• Deliver an oral presentation. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Through provision of written reports and oral presentations to clients and enterprise personnel. |
| 2. How can **information be collected, analysed and** | Through identification of sources of information, and retrieval and collation of data. |

| | | |
|---|---|---|
| | **organised (3)**? | |
| 3. | How are **activities planned and organised (3)**? | In accordance with standard research approaches in line with enterprise procedures and policies. |
| 4. | How can **team work (2)** be applied? | Through participating in research and the preparation of reports and presentations. |
| 5. | How can the use of **mathematical ideas and techniques (3)** be applied? | In compiling and evaluating data for the report. |
| 6. | How can **problem-solving skills (3)** be applied? | Through making recommendations based on reasoned argument. |
| 7. | How can the **use of technology (3)** be applied? | Through the use of computers in preparing reports and use in presentations. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD2126A Recognise animals

This competency standard covers the process of recognising animals that are commonly encountered when undertaking agricultural, horticultural and land management activities. Recognising animals is likely to be under routine supervision with intermittent checking by supervisors, and requires a knowledge of animal identification techniques and nomenclature, enterprise procedures for obtaining and supplying advice and information about animals, and enterprise expectations about the range and number of animals to be recognised.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for animal recognition | 1.1 | **Range of animals** requiring recognition is identified according to supervisors/customers needs. |
| | | 1.2 | **Resources and equipment** for use in recognition activity are located and identified. |
| | | 1.3 | Available **processes** for animal recognition are identified, selected and prepared for use. |
| 2 | Recognise specified animals | 2.1 | Specified animals are recognised and **named** according to their **identifiable characteristics**. |
| | | 2.2 | Brief descriptions of animal habits, characteristics and significant features are recorded. |
| | | 2.3 | The advice of supervisors is sought when necessary and where appropriate in the identification activity. |
| 3 | Complete identification of animals | 3.1 | Information about identified animals is **documented** according to enterprise requirements and added to the reference collection. |
| | | 3.2 | Field notes are updated as new animals are recognised. |
| | | 3.3 | Rare, uncommon or notifiable pest animals are reported to supervisor according to enterprise guidelines. |

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| 3.4 | Handling, transporting and housing of animals comply with animal ethics guidelines, animal welfare regulations and statutory requirements. |

## Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in particular training and assessment requirements may depend on the work situations available.

| | |
|---|---|
| What **range of animals** may be relevant to this standard? | Animals may be native or introduced species and can include mammals, birds, reptiles, amphibians, fish, arthropods and microfauna. Animals will comprise those commonly encountered within the industry workplace. |
| How will animals be **named**? | Common names will be used in recognition of animals. However, in some situations scientific names may be required.<br>In Indigenous communities, language names can be used in lieu of common names. |
| What **resources** may be used to recognise animals? | Resources may include field guides, enterprise or public library, business and research organisation websites, suppliers and contractors, enterprise supervisor and team colleague experience, and experts in the local area or industry sector. It may also include personal or enterprise reference collection. |
| What **equipment** may be used to recognise animals? | Equipment may include cameras, video recorders, binoculars, field guides, protective gloves and clothing, boats, wetsuits and skin-diving gear, and animal trapping and catching paraphernalia. |
| What **processes** may be available for aid in the recognition of animals? | Processes may include literature searches, internet browsing, personal consultation with experts, specimen collections, field guides, workplace notes, and use of simple keys. |
| What identifiable **animal characteristics** may be useful when identifying animals? | Animal characteristics may include the shape, size colour, texture, hair, movement, habitat and behaviour. |

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|---|---|
| What **documentation** is involved in identifying animals? | Documentation may include a written description of the animal species including common and scientific names, visible characteristics, details of occurrence, photographs and reports according to the requirements of the enterprise or industry sector. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in recognising animals requires evidence that a person can identify and utilise available resources and equipment to identify animals accurately. The skills and knowledge required to recognise animals must be **transferable** to a different work environment. For example, this could include different animals, workplace settings and environments.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:<br>• Animal identification techniques and nomenclature.<br>• Animal behaviour.<br>• Animal habitats.<br>• Animal tracks and traces.<br>• Techniques for observing, collecting/catching and reporting animals.<br>• Enterprise procedures for obtaining and supplying advice and information about animals.<br>• Enterprise expectations about the range and number of animals to be recognised. |

| | |
|---|---|
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:<br>• Recognise animals specific to the enterprise and describe their features and main occurrence within the enterprise.<br>• Use simple keys.<br>• Communicate with customers and clients, interpret questions effectively, and provide limited advice and information about the animals specific to the enterprise. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Ideas and information relating to animal recognition should be discussed with other members of the work team and the supervisor. |
| 2. How can **information be collected, analysed and organised (1)**? | Information on specific animals should be discussed with the work team and supervisor. |
| 3. How are **activities planned and organised (1)**? | Equipment, materials and work procedures for animal recognition will need to be planned in advance of activities commencing. |
| 4. How can **team work (1)** be applied? | Animal recognition activities may involve working with other members of a team, or work alone with advice and help sought where necessary. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Counting and estimating numbers of animals will require mathematical application. |
| 6. How can **problem-solving skills (1)** be applied? | Problems relating to the difficulty of identifying certain features of an animal or |

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| | using a taxonomic key may arise. |
| 7. How can the **use of technology (1)** be applied? | Technology may be applied in the identification and electronic recording of animals, research procedures, and telecommunication used for the provision of information about animals to clients and customers. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

# RTD2202A Conduct erosion and sediment control activities

This competency standard covers the process of carrying out erosion and sediment control activities in both urban and rural environments. It requires the ability to identify erosion and sediment control structures, carry out routine work in compliance with control measures, undertake work in accordance to legislation and community expectation and project specifications. Conducting erosion and sediment control activities requires knowledge of basic issues related to erosion and sedimentation, role of vegetation, characteristics of soils with an emphasis on erosion prone soils, relevant legislation and local environmental parameters.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Align work site practices with **erosion and sediment control** principles | 1.1 | Erosion and sedimentation legislation is adhered to at the work site as a part of contract works. |
| | | 1.2 | Procedures relating to erosion and sediment control are applied on the work site align with industry standards. |
| 2 | Implement erosion and sediment control principles in the workplace | 2.1 | Breaches of erosion and sediment control legislation are noted and reported. |
| | | 2.2 | Industry practices for erosion and sediment control is applied in the work place. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What are erosion and sediment control activities? | Land shaping including batter stabilisation, banks, channels, and sediment basins, traps, filters and fences. Also includes revegetation. |
| What are erosion and sediment control structures? | Grade stabilising structures, outlet protection structures, stormwater detention measures, dust control, and rural roads and tracks. |

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|---|---|
| What industry people may be included? | Earthmoving machine operators, cartage contractors, timber harvest machine operators, product suppliers, labourers, trade personnel, fuel suppliers, engineers, landholders, landcare groups, fitters, contractor support staff, project supervisors, forest and plantation workers, supervisors, surveyors and foresters. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in conducting erosion and sediment control activities on development sites requires evidence that erosion and sediment control work has been properly completed according to community and agency guidelines and best practice procedures. The skills and knowledge required to conduct erosion and sediment control activities on development sites must be **transferable** to a range of work environments and contexts. For example, this could include different forms of erosion and sediment control, locations and soil types.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Relevant legislation.<br>• Cost to the community of erosion and sedimentation.<br>• Loss of habitat.<br>• Water quality.<br>• Loss of production/asset/amenity.<br>• Re-occurring maintenance/repair/monitoring.<br>• Agents/processes of erosion and sedimentation.<br>• Basic catchments issues.<br>• Role of vegetation.<br>• Characteristics of soils with an emphasis on erodible soils. |

| | |
|---|---|
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Identify erosion and sediment control structures/measures/practices.<br>• Carry out routine work with control measures and structures.<br>• Undertake activities in accordance with legislation/community expectation and project specifications. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | By discussing verbally erosion and sediment control activities on development sites with supervisors. |
| 2. How can **information be collected, analysed and organised (1)**? | Conducting erosion and sediment control activities on development sites will require basic planning and construction information to be gathered and organised accordingly. |
| 3. How are **activities planned and organised (2)**? | Conducting erosion and sediment control activities on development sites requires some planning and organising of construction resources. |
| 4. How can **team work (2)** be applied? | Conducting erosion and sediment control activities on development sites will require coordination of self and others in a team. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques relating to measurement and timing could be applied. |
| 6. How can **problem-solving skills (2)** be applied? | While conducting erosion and sediment control activities on development sites, technical and organisational problems may |

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| | arise requiring innovative solutions. |
| 7. How can the **use of technology (1)** be applied? | Construction technology will be required. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD2501A Maintain cultural places

This competency standard covers the process of maintaining cultural places as instructed by supervisors. It requires the ability to prepare for maintenance, maintain condition of place and protect cultural places. Maintaining cultural places requires knowledge of maintenance needs for a site, techniques of site protection, range of maintenance works undertaken on cultural sites, requirements of legislation and enterprise in conservation of place and enterprise procedures relating to the reporting of deterioration or damage to place or reporting of incidents.

**Note: For Indigenous cultural places, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Assess **maintenance** work required | 1.1 | Works required under the plan of management and enterprise procedures are identified. |
| | | 1.2 | Machine, equipment and materials to carry out maintenance works are identified. |
| | | 1.3 | Type and amount of materials required for maintenance work are estimated. |
| 2 | Prepare for **maintenance** | 2.1 | Machine, equipment and materials to carry out maintenance works are organised. |
| | | 2.2 | Safety equipment and materials are prepared and assembled according to enterprise OHS policy. |
| 3 | Maintain condition of place | 3.1 | Maintenance work is undertaken according to work programs and according supervisors instructions. |
| | | 3.2 | Presence of **threats** is reported to supervisor. |
| | | 3.3 | Evidence of **deterioration and wear** is reported to supervisor. |
| | | 3.4 | Site is made good on completion of maintenance works according to supervisor’s instructions enterprise |

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| | | | guidelines. |
| 4 | Protect **cultural places** | 4.1 | Any evidence of **damage** to place is reported to supervisor. |
| | | 4.2 | Any breach of legislation or enterprise regulations is reported to supervisor. |
| | | 4.3 | Protective barriers and signs are maintained according to enterprise procedures. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **cultural places** of areas may be included? | Areas of non-indigenous activity, buildings and other structures, natural areas of indigenous cultural significance, historical events and monuments, areas of indigenous activity such as burial, occupation and contact sites, engravings, grinding grooves, sacred trees, rock pictures, fish traps, middens and mounds. |
| What is **maintenance** in accordance with? | The plan of management, which may contain general actions for an area or specific actions for a place. |
| Which **threats** may be included? | Pest plants, animals, and site visitors/tourists. |
| Which types of **deterioration or wea**r may be included? | Wear or fretting due to the impact of weathering, vandalism, wear due to use, which may either detract from the significance or be part of the significance, decay and rust. |
| Which types of **damage** may be considered? | Human, vehicles and animals, either accidental or intentional damage from pests including fungi, rising damp (salt damp), dust, flooding and storms. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in maintaining cultural places requires evidence that a cultural site or place has been appropriately maintained according to community and agency guidelines and best practice procedures. The skills and knowledge required to maintain cultural places must be **transferable** to a range of work environments and contexts.

For example, this could include different cultural sites, locations and maintenance techniques.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• OHS responsibilities.<br>• Common pests and diseases.<br>• Techniques of site protection.<br>• Range of maintenance works undertaken on cultural sites.<br>• Enterprise procedures relating to the reporting of deterioration or damage to place or reporting of incidents.<br>• Site recording systems used by the enterprise or community.<br>• Relevant archaeological practices and procedures. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Assess maintenance work required.<br>• Prepare for maintenance.<br>• Maintain condition of place.<br>• Protect cultural places. |

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Notify non-compliance, pest and disease problems. |
| 2. How can **information be collected, analysed and organised (1)**? | Maintenance works, pest and diseases, condition of place. |
| 3. How are **activities planned and organised (2)**? | Maintenance program, machinery and equipment. |
| 4. How can **team work (1)** be applied? | Carrying out maintenance works. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Estimating time, materials and labour. |
| 6. How can **problem-solving skills (1)** be applied? | When preparing and carrying out works. |
| 7. How can the **use of technology (1)** be applied? | Machinery and equipment for maintenance activities, communications systems. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD2502A Maintain wildlife habitat refuges

This competency standard covers the process of maintaining wildlife habitats and refuges to protect desirable animal species from predators. It requires the ability to assess the scope of the refuge maintenance job, prepare for the work, maintain wildlife habitat refuges, and clean and store equipment and materials. Maintaining wildlife habitat refuge for protection of desirable animal species requires knowledge of relevant legislation and regulations, common law principles relating to property, stock, duty of care and due diligence, vertebrate pest life cycles and behaviours, harbours used by vertebrate pests, and harbours used by desirable animal species.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Assess the scope of the refuge maintenance job | 1.1 | **Desirable wildlife species** to be protected are identified and their behaviour pattern determined. |
| | | 1.2 | Characteristics of wildlife habitat refuges are identified. |
| | | 1.3 | Locations of wildlife habitat refuges are determined. |
| | | 1.4 | Time required to complete the wildlife habitat refuge maintenance job is estimated. |
| | | 1.5 | **Hazards** associated with the wildlife habitat refuge maintenance job are identified in accordance with OHS standards. |
| | | 1.6 | **Environmental risks** associated with the wildlife habitat refuge maintenance job are identified in accordance with statutory and local authority requirements. |
| | | 1.7 | Vehicles, equipment and materials required to complete the wildlife habitat refuge maintenance job are identified. |
| 2 | Prepare for the refuge maintenance job | 2.1 | Location and boundaries for the wildlife habitat refuge maintenance job are determined in accordance with the vertebrate pest management strategy and monitoring program. |

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| | | 2.2 | Precautions to minimise hazards associated with the wildlife habitat refuge maintenance job are taken in accordance with OHS standards. |
| | | 2.3 | Precautions to minimise environmental risks associated with the wildlife habitat refuge maintenance job are taken in accordance with statutory and local authority requirements. |
| | | 2.4 | Vehicles, equipment and materials are checked for serviceability in accordance with manufacturer's specifications and relevant policies. |
| 3 | Maintain wildlife habitat refuges for protection of desirable species from predators | 3.1 | Vehicles and equipment are operated and/or driven in accordance with manufacturer's instructions, statutory requirements and industry practice. |
| | | 3.2 | Wildlife habitat refuges which protect desirable animal species are maintained in accordance with industry practice and environmental statutory requirements. |
| | | 3.3 | Desirable animal species are protected as required in accordance with environmental statutory requirements. |
| | | 3.4 | Debris is disposed of in accordance with industry practice. |
| 4 | Clean and store equipment and materials | 4.1 | Equipment and materials are cleaned and stored in accordance with relevant standards and policies. |
| | | 4.2 | Job completion is reported or recorded in accordance with relevant policies and procedures. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What are desirable wildlife species? | Native animals that are not targeted as vertebrate pests. |

| | |
|---|---|
| What wildlife habitat maintenance work may be relevant to this standard? | Monitoring of vertebrate pest occurrence, trapping of pest animals, removal of pest habitats, planting of vegetation including revegetation of open areas, and installation of structures including exclusion fencing. |
| What are the relevant federal, state legislation and local regulations that may be included? | Environmental protection, threatened species conservation, vertebrate pests, humane treatment of animals, activities in nature reserves and heritage areas, poisons and veterinary substances, identification and reporting of suspected outbreaks of exotic disease, OHS regulations, and common law principles relating to property, stock, duty of care and due diligence. |
| What might be included as resources? | Human, financial, physical (traps, firearms, ammunition, poisons, fencing materials, veterinary products), land, air and water transport facilities and plant (excavators, front-end loaders), and plant materials. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in maintaining wildlife habitat refuge for protection of non-target animals from predators requires evidence that a site has been selected, assessed and maintained according to enterprise and industry standards. The skills and knowledge required to maintain wildlife habitat refuge for protection of native species from predators must be **transferable** to a range of work environments and contexts. For example, this could include different wildlife habitats and locations and predators.

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| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Relevant legislation and regulations.<br>• Common law principles relating to property, stock, duty of care and due diligence.<br>• Risks to land and marine users' posed by vertebrate pests including exotic diseases and zoonoses.<br>• Vertebrate pest life cycles and behaviours.<br>• Harbours used by vertebrate pests.<br>• Wildlife habitats used by desirable animal species.<br>• Wildlife habitat modification techniques. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Communicate with work colleagues.<br>• Use and maintenance of tools and equipment.<br>• Record and report task completion and, where necessary, observations of property status.<br>• Prepare for the refuge maintenance job.<br>• Maintain wildlife habitat refuges for protection of desirable animal species from predators.<br>• Clean and store equipment and materials. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be | Clarify requirements and expectations for the job and liaise with work colleagues. |

| | |
|---|---|
| applied? | |
| 2. How can **information be collected, analysed and organised (2)**? | Inspect areas to be maintained and distinguish between features which harbour pests and features which provide protection for desirable animal species. |
| 3. How are **activities planned and organised (2)**? | Organise own work activities. |
| 4. How can **team work (2)** be applied? | Collaborate with work colleagues during work activities. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Perform mathematical operations – estimation of task duration. |
| 6. How can **problem-solving skills (1)** be applied? | Consider problems that arise during the job and determine contingency activities. |
| 7. How can the **use of technology (2)** be applied? | Apply modern techniques and utilise equipment and materials. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD2802A Record information about country

This competency standard covers the process of recording information and knowledge on country - from both an Indigenous and non-Indigenous perspective. It requires the ability to collect and assess information and document information according to community guidelines and protocols. Recording information about country requires knowledge of a designated area and the features of the country, names for plants and animals, and protocols and the customs relating to disclosure of information about country.

**Note: Delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Collect information | 1.1 | Boundaries and extent of **country** are determined according to community guidelines and protocols. |
| | | 1.2 | Plant and animal species are identified by local or common name. |
| | | 1.3 | Special features and sites of country are identified. |
| | | 1.4 | Knowledge on relationships of plants and animals is investigated from Indigenous land and sea management and cultural perspectives. |
| | | 1.5 | Information on relevant management practices for country is investigated. |
| | | 1.6 | History of dispossession is acquired from community sources and available literature. |
| | | 1.7 | Simple food chains relevant to country are defined. |
| 2 | Review changes | 2.1 | **Environmental changes** since dispossession and the impacts of these changes on plant and animal communities are identified. |
| | | 2.2 | Environmental trends and their potential impacts on country are documented. |

| | | |
|---|---|---|
| | 2.2 | Land and sea management practices that address environmental change are **recorded**. |
| 3. Document information | 3.1 | Information about country is recorded according to community guidelines and protocols. |
| | 3.2 | Access to information is provided to those who are authorised according to community guidelines and protocols. |
| | 3.3 | Ownership of information is appropriately recognised and recorded. |
| | 3.4 | Conditions and parameters defining use of information is clearly documented. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What is **country**? | Country is an area of land and/or water with cultural significance to a group. |
| What **ecological concepts** may be relevant to this competency standard? | Ecological concepts include niche, habitat, community, ecosystem**,** food webs/chains, species and relationships, plant and animal succession. |
| How can **ecosystems** be defined? | An ecosystem is defined by habitat and vegetation and includes the animals of the space, the weather and soil and the cycle of energy and nutrients. |
| What methods of **recording** may be relevant to this standard? | Recording may include written documentation, illustration or commitment to memory. |
| What may be included in **environmental changes**? | The introduction of pollution, chemicals, weeds, feral animals and introduced pests to the environment. |
| What **chemical substances** may be included? | Pesticides, herbicides, fertilisers, heavy metals, acid wastes and any other chemicals in the soil, air or water that effect the food chain or other cycles. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in recording information about country requires evidence that information about country has been appropriately acquired and recorded according to community guidelines and protocols. The skills and knowledge required for recording information about country must be **transferable** to a range of work environments and contexts. For example, this could include different recording media, management practices and approaches and areas within country.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Designated areas and features of country.<br>• Local and/or common names for plants and animals.<br>• Basic ecological concepts.<br>• Protocols and customs relating to disclosure of knowledge about country. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Collect information.<br>• Document information.<br>• Operate according to community guidelines and protocols. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be | Communication of ideas and information can be applied orally, in written or electronic |

| | |
|---|---|
| applied? | format. |
| 2. How can **information be collected, analysed and organised (2)**? | Information can be collected, analysed and organised through community consultation with Indigenous peoples. |
| 3. How are **activities planned and organised (2)**? | Activities can be planned and organised according to community guidelines and protocols. |
| 4. How can **team work (1)** be applied? | Teamwork can be applied in collecting, sharing, demonstrating and analysing information. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematical ideas and techniques can be applied in assessing the size of plant and animal communities. |
| 6. How can **problem-solving skills (2)** be applied? | Problem solving skills can be applied in assessing and discussing with Indigenous communities environmental changes to country. |
| 7. How can the **use of technology (1)** be applied? | The use of technology such as photography can be applied in recording information and assessing environmental impacts with permission from traditional owners. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD2803A Observe and report plants and/or animals

This competency standard describes tasks associated with the observation, recording and reporting on the presence of plants and/or animals against criteria provided by a supervisor or as required under legislation or regulations. It requires the ability to plan and organise observations, collect and record information and report data usually under routine supervision. Observing and reporting on plants and animals is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of observation and reporting situations usually within established workplace routines.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Plan and organise observations | 1.1 | Defined process for observation is prepared and agreed by supervisor. |
| | | 1.2 | Equipment for observation is obtained according to enterprise procedures. |
| | | 1.3 | Requirements under legislation, protection agreements and **enterprise procedures** for species are noted. |
| 2 | Collect information and record | 2.1 | **Plants and animals** and/or their presence are identified orally or from field guides to enterprise guidelines. |
| | | 2.2 | **Plants and animals** and/or samples are collected as required under enterprise guidelines. |
| | | 2.3 | **Protection and quarantine** requirements under legislation, protection agreements and enterprise procedures for species are observed. |
| | | 2.4 | Observation activities minimise degradation and disturbance and comply with legislation and OHS requirements. |
| 3 | Report data | 3.1 | Information on observed plants and animals are recorded and organised according to enterprise guidelines. |
| | | 3.2 | Information is communicated to supervisors according to enterprise guidelines. |

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| | 3.3 Records are compatible with enterprise recording and database arrangements. |
| | 3.4 Occurrence of an organism is plotted and described using maps and grid references. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which levels of **scientific names** are used for plant identification? | Family, genus and species. |
| Which levels of **scientific names** are used for animal identification? | Order, family, genus and species as appropriate. |
| Which **plant species** to be reported may be included? | Listed threatened species, listed notifiable or noxious weeds, plants not previously seen at regularly visited site, plants to be reported under enterprise or industry guidelines. |
| Which **animal species** to be reported may be included? | Listed threatened species, listed notifiable species, animals not previously seen at regularly visited site, invertebrates, aquatic organisms, and animals to be reported under enterprise or industry guidelines. |
| What could **lists** include? | Written descriptions, drawn illustrations or photographs presented in any media, enterprise lists of plants, lists of noxious plants, feral or dangerous animals. Lists may vary according to land use and habitat of subject area. |
| To **whom** should plants be reported? | The supervisor or appropriate authority, as set out in enterprise procedures. |
| Which **protection and quarantine** arrangements are relevant to this standard? | Personal protection, restriction on the movement of species and/or associated hygiene arrangements, and protection of rare-endangered species. |
| What **enterprise requirements** and **regulatory guidelines** may be relevant? | Policies, procedures and management plans, relevant OHS requirements, and Codes of Practice or enterprise guidelines. |

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| Which forms of **workplace communication** is relevant to this competency standard? | Field guides to identify species, obtaining advice, communicating with staff and the public, and taking notes. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in observing and reporting on plants and animals requires evidence that specific species of plants or animals (or their presence) have been recognised in the field and reports to the appropriate authorities or supervisor.

The skills and knowledge required to observe and report on plants and animals must be **transferable** to a range of work environments and contexts. For example, this could include different designated areas and plant or animal species. Occupational Health & Safety standards must be observed at all times.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Criteria used to group species.<br>• Common and scientific names of plants and animals.<br>• Biological species occurring in the study area.<br>• The importance, value or potential impact of the species in a designated area.<br>• Rare and endangered species.<br>• Undesirable plants (e.g., weeds) and animals.<br>• Maps and grid references. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Plan and organise observations.<br>• Collect information and record.<br>• Interpret data. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Verbal and written reports. |
| 2. How can **information be collected, analysed and organised (2)**? | Presence of fungi, plants and animals. |
| 3. How are **activities planned and organised (2)**? | Timelines, equipment and materials for observation work. |
| 4. How can **team work (2)** be applied? | Seeking advice from others in dealing with problems, coordinating observations. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Counting and estimating plants and animals. |
| 6. How can **problem-solving skills (2)** be applied? | Planning and conducting observations, recognising situations requiring notification. |
| 7. How can the **use of technology (2)** be applied? | Observation and measuring equipment. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD3034A Implement revegetation works

This competency standard covers the process of implementing revegetation works. It requires the ability to prepare equipment and materials for revegetation, prepare a planting site, undertake revegetation works, and maintain a revegetated site. Implementing revegetation works requires knowledge of factors affecting the timing and method of planting, identification of plant pests and diseases, revegetation techniques, physiology of plant growth, plant selection and culture, soils and plant nutrition, and calculations for materials.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare equipment and materials | 1.1 | Tools and materials are selected for the task to be undertaken according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations. |
| | | 1.2 | **Plant materials** are identified, obtained and stored according to enterprise guidelines. |
| | | 1.3 | Labour and machinery requirements are estimated and organised. |
| | | 1.4 | Schedule of works is prepared and provided to management/client. |
| 2 | Prepare the revegetation site | 2.1 | Site preparation is undertaken according to planting plan and/or supervisor's instructions. |
| | | 2.2 | Soil ameliorants are used if necessary according to job specifications. |
| | | 2.3 | Revegetation site is marked out according to supervisor's directions and/or plans. |
| | | 2.4 | All competing plants, debris and pollutants are treated according to enterprise guidelines. |
| | | 2.5 | Treatments are selected and applied according to enterprise guidelines and manufacturers instructions. |

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| | | 2.6 | Protective structures are installed as required. |
| 3 | Effect revegetation works | 3.1 | Revegetation works are effected according to enterprise guidelines. |
| | | 3.2 | All plants materials are inspected prior to revegetation works and defective materials are discarded. |
| | | 3.3 | Plant materials to be installed are treated according to enterprise guidelines. |
| | | 3.4 | Plant materials are installed according to planting program and enterprise guidelines. |
| | | 3.5 | Remedial action is undertaken to ensure all of the revegetation program requirements have been implemented. |
| | | 3.6 | Potential threats to revegetation works are identified and reported according to enterprise guidelines. |
| 4 | Maintain revegetated site | 4.1 | Site is maintained according to the planting program requirements and enterprise guidelines. |
| | | 4.2 | Remedial action and plant protection is undertaken according to the needs of the **species.** |
| | | 4.3 | Tools and equipment are cleaned, maintained and stored consistent with manufacturers' specifications and enterprise guidelines. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What sorts of **site conditions** may be included? | Soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works and shade. |
| Which **species** selected may be relevant to this standard? | Native and exotic plants. |

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|---|---|
| Which **plant materials** might be included? | Seedlings, seeds, cuttings, divisions, bulbs, corms, rhizomes, or transplanted stock. |
| Which **establishment methods** may be used? | Hand planting, mechanical planting, direct seeding, encouragement of natural regeneration, mechanical sowing and fire. |
| Which forms of **earthworks** may be considered? | Irrigation, drainage, ripping, cultivating and clearing debris. |
| What sorts of **growing requirements** may be included? | Time of planting, pruning, depth and drainage. |
| How might **maintenance** be undertaken? | By watering, mulching, fertilising, protection, staking and weeding. |
| Which **protective structures** might be included? | Signs, fences, barriers, cloches, stakes and mulches. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in implementing revegetation works requires evidence that a site has been appropriately revegetated and maintained according to enterprise guidelines and industry best practice. The skills and knowledge required to implement revegetation works must be **transferable** to a range of work environments and contexts. For example, this could include different environments, plant species and revegetation techniques.

**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:

- Revegetation techniques.
- Ecosystems, provenance and habitat requirements.
- Factors affecting the timing and method of planting.
- Identification of pests and diseases of trees.
- Principles and methods relating to the prevention and control of pests and diseases.
- Safety requirements when handling and using hazardous goods.
- Nutrient requirements of a range of plant species and cultivars.
- Physiology of plant growth.
- Techniques for protecting and securing/anchoring trees and shrubs.
- Plant selection and culture.
- Soils and nutrients.
- Calculations for materials.

**What specific skills are needed to achieve the performance criteria?**

To achieve the performance criteria, some complementary skills are required. These skills include the ability to:

- Prepare equipment and materials.
- Prepare a planting site.
- Effect revegetation works.
- Maintain revegetated site.

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Inform fellow workers of works. |
| 2. How can **information be collected, analysed and organised (2)**? | Schedule of works. |
| 3. How are **activities planned and organised (2)**? | Equipment, machinery and materials. |
| 4. How can **team work (2)** be applied? | Carrying out revegetation works. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Calculation of materials. |
| 6. How can **problem-solving skills (2)** be applied? | Defects in materials, problems requiring remedial action. |
| 7. How can the **use of technology (2)** be applied? | Tools and equipment. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3132A Survey pest animals

This competency standard covers the process of surveying pest animal abundance by conducting ground and aerial counts. It requires the ability to identify the target pest animal and its associated behaviours, define the geographical parameters for the count, apply survey principles and techniques, and undertake accurate observations and recording. Surveying pest animals requires knowledge of pest behaviour and habitats, relevant legislative and regulatory requirements, environmental protection legislation, zoonoses and exotic diseases.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Assess the scope of the count | 1.1 | Target **pest animal** is confirmed. |
| | | 1.2 | Location of habitats and range of movement of target pest animal is confirmed. |
| | | 1.3 | Item(s) of direct evidence of pest animal to be counted are determined. |
| | | 1.4 | Time required to complete the survey is estimated. |
| | | 1.5 | Hazards associated with the survey are identified in accordance with OHS standards. |
| | | 1.6 | Environmental risks associated with the survey are identified in accordance with statutory and local authority requirements. |
| | | 1.7 | **Resources** required to complete the survey are identified. |
| 2 | Prepare to conduct the count | 2.1 | Location and boundaries for the count are mapped in accordance with the pest animal management strategy and monitoring program. |
| | | 2.2 | Time and duration of the count are checked and relevant personnel notified. |
| | | 2.3 | Precautions to minimise hazards associated with the count are taken in accordance with OHS standards. |

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| | | 2.4 | Precautions to minimise environmental risks associated with the count are taken in accordance with statutory and local authority requirements. |
| | | 2.5 | **Resources** required to complete the count are checked for serviceability in accordance with manufacturer's specifications and relevant policies. |
| | | 2.6 | Where the count involves aerial observation, precautions to minimise associated hazards are taken in accordance with industry practice. |
| 3 | Conduct count and record observations | 3.1 | Equipment is operated in accordance with the statutory requirements and industry practice. |
| | | 3.2 | Count is conducted within the boundaries of the specified location in accordance with the pest animal management strategy and monitoring program. |
| | | 3.3 | Precautions to minimise hazards associated with the count are implemented in accordance with OHS standards. |
| | | 3.4 | Precautions to minimise environmental risks associated with the count are implemented in accordance with statutory and local authority requirements. |
| | | 3.5 | Observations of direct evidence of target pest animal are recorded in accordance with the pest animal management strategy and monitoring program requirements. |
| 4 | Clean and store equipment and materials | 4.1 | Equipment and materials are cleaned and stored in accordance with relevant standards and policies. |
| | | 4.2 | Observation record documents are compiled and filed in accordance with relevant policies and procedures. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **methods** for determining pest population distribution may be used? | Animal counts (including spotlight and aerial counts, faecal counts, warren, burrow, den and nest counts), and tracking pads and feeding stations. |
| Which relevant **Federal, State legislation and local regulations** may be included? | Environmental protection, pest animals, use of firearms (including licensing requirements and exemptions) humane treatment of animals, activities in nature reserves and heritage areas, poisons and veterinary substances, identification and reporting of suspected outbreaks of exotic disease, OHS regulations and common law principles relating to property, stock, duty of care and due diligence. |
| Which **resources** may be required for this standard? | Tools, equipment, materials and human resources. |
| What forms of **documentation** may be included? | Observation sheets and count summary records. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in surveying pest animals requires evidence that a count has been safely and effectively organised and completed according to enterprise guidelines and industry best practice. The skills and knowledge required to conduct counts to measure abundance of pest animals must be **transferable** to a range of work environments and contexts. For example, this could include different pest animals, survey techniques and locations.

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| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Pest behaviour and habitats.<br>• Relevant legislative and regulatory requirements.<br>• Environmental protection legislation.<br>• Zoonoses and exotic diseases. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Plan activities.<br>• Manage time.<br>• Count, add and record observations.<br>• Apply spotlighting techniques.<br>• Document and summarise observations. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | Liaise with team members and colleagues during count activities and report activities. |
| 2. How can **information be collected, analysed and organised (2)**? | Implement information gathering techniques. |
| 3. How are **activities planned and organised (3)**? | Organise own work activities. |
| 4. How can **team work (3)** be applied? | Collaborate with team during count activities. |

| | |
|---|---|
| 5. How can the use of **mathematical ideas and techniques (3)** be applied? | Record and collate data. |
| 6. How can **problem-solving skills (3)** be applied? | Determine scope of the count activities. |
| 7. How can the **use of technology (2)** be applied? | Collate data, document findings and develop the report. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD3212A Implement erosion and sediment control measures

This competency standard covers the process of the construction/installation and maintenance of a range of measures specified on erosion and sediment control plans, and complies with the requirements often associated across a broad range of land disturbance and restoration projects. It requires the ability to prepare for implementation and construction, carry out implementation and construction works, and carry out repairs and maintenance procedures. Implementing erosion and sediment control measures requires knowledge of materials cartage, pollution control, sequence of working and timing, occupational health and safety issues relating to the site, equipment used, construction techniques and specifications and standards.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare for implementation and construction | 1.1 | Erosion and sediment control plan and schedule of works match site conditions. |
| | | 1.2 | Survey pegs and site indicators are identified on site. |
| | | 1.3 | Equipment and tools are matched to program works and terrain on site. |
| | | 1.4 | Work readiness of selected equipment and tools are verified in line with contractor policy. |
| | | 1.5 | Materials are selected to complete proposed works in line with construction schedule. |
| 2 | Carry out implementation and construction | 2.1 | Earthworks are constructed in accordance with details specified in the plan and to industry standards. |
| | | 2.2 | Erosion and sediment control products and materials are installed in accordance with manufacturers recommendation and industry guidelines and plans. |
| 3 | Carry out repairs and maintenance procedures | 3.1 | Site works maintenance inspection schedule is applied to reinstate operating effectiveness of erosion and sediment control measures on site. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **industry sectors** may be included? | Local government, urban, civil construction, forestry, extractive industry, rural, natural resource management. |
| Which **industry sector people** may be included? | Earthmoving machine operators, timber harvest machine operators, labourers, cartage contractors, fuel suppliers, product suppliers, landholders, trade personnel, fitters, engineers, project supervisors, landcare group members, surveyors, contractor support staff, forest supervisors and foresters. |
| Which types of **control measures** may be included? | Site management, land shaping, batter stabilisation, banks and channels, level spreader, revegetation, waterways, check dams, bank and channel linings, grade stabilising structures, outlet protection structures, stormwater detention measures, dust control, rural road & track crossbank and crossfall (e.g., infall, outfall, crown, drainage). |
| Which types of **sediment control** measures may be included? | Sediment basins, sediment traps, sediment filters, excavated sediment traps, straw bale, stormwater inlet sediment traps, sediment fence, straw bale, geotextile fabric and vegetation strips. |
| What methods of **implementation** may be included? | Construction, installation, maintenance. |
| For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet. | |

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in implementing erosion and sediment control measures requires evidence that erosion and sediment control measures have been satisfactory constructed or installed according to enterprise guidelines and industry best practice. The skills and knowledge required to implement erosion and sediment control measures must be **transferable** to a range of work environments and contexts.

For example, this could include different measures, machinery and soil types.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Materials cartage pollution control.<br>• Sequence of working and timing/duration.<br>• Occupational health & safety issues relating to the site.<br>• Equipment used.<br>• Construct, install and maintain includes materials, quantity and where to source them on site.<br>• Construction/installation techniques for all measures on the plan.<br>• Limitations of structures including timing of maintenance, structure life cycle, specifications and standards. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Prepare for implementation and construction.<br>• Carry out implementation and construction.<br>• Carry out repairs and maintenance procedures. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | By discussing verbally or in writing erosion and sediment control measures with supervisors and others. |
| 2. How can **information be collected, analysed and organised (1)**? | Implementing erosion and sediment control measures will require basic site information to be gathered and organised accordingly. |
| 3. How are **activities planned and organised (2)**? | Implementing erosion and sediment control measures requires some planning and organising. |
| 4. How can **team work (2)** be applied? | Implementing erosion and sediment control measures will require coordination of self and others in a team. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques relating to sequencing of working and timing/duration could be applied. |
| 6. How can **problem-solving skills (1)** be applied? | During erosion and sediment control, implementation technical and organisational problems may arise requiring simple solutions. |
| 7. How can the **use of technology (1)** be applied? | Erosion control technology will be required. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD3405A Monitor and evaluate the local pest management action plan

This competency standard covers the process of monitoring and evaluating the local area pest management action plan. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved. Competencies are normally used within routines, methods and procedures where some discretion is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Collate all available data | 1.1 | Data on pests' abundance are collated. |
| | | 1.2 | Date on economic impacts of pests are collated. |
| | | 1.3 | Data on environmental impacts of pests are collated. |
| | | 1.4 | Data on pest management action plan operating costs are collated. |
| 2 | Assess data against objectives and performance criteria | 2.1 | Actual results are compared with objectives and performance criteria for the action plan. |
| | | 2.2 | Actual costs are compared with budget for the strategy. |
| | | 2.3 | Cost and benefits of the action plan are documented. |
| 3 | Compile report of strategy evaluation | 3.1 | Report is compiled following enterprise procedures. |
| | | 3.2 | Indicators of good performance of the action plan are isolated and discussed. |
| | | 3.3 | Causes of poor performance are examined. |
| | | 3.4 | Conclusions about the pest management action plan in relation to changes in pest abundance and impacts are clearly stated. |
| | | 3.5 | Conclusions are supported by the data. |

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| 4 | Recommend modifications | 4.1 | Recommendations to modify or eliminate causes of poor performance, or to enhance current performance are made. |
| | | 4.2 | Recommendations provided to supervisor or other authority in format that complies with enterprise guidelines. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **land uses** may be relevant? | Local agricultural production, local forestry industry, local nature and wildlife reserves, local heritage areas and local recreation areas. |
| What are the relevant **Federal, State legislation and local regulations**, which may apply to this standard? | Environmental protection, vertebrate pests, use of firearms (including licensing requirements and exemptions) humane treatment of animals, activities in nature reserves and heritage areas, poisons and veterinary substances, identification and reporting of suspected outbreaks of exotic disease, OHS regulations and common law principles relating to property, stock, duty of care and due diligence. |
| What forms of **land value** may be relevant? | Economic and environmental value. |
| Who might other **stakeholders** be? | Land managers in the region, recreational land users, regional land management bodies, local regulatory authorities and landcare committees. |
| Which **measures of potential or actual impact** may be included in the management units? | Biological values, agricultural values, environmental values, recreational and social values and public health values. |
| Which **pests** may be relevant to this standard? | Animals scheduled as **vertebrate pests** and plants scheduled as **pest plants**. |
| Which methods for determining **vertebrate pest** population distribution may be used? | Animal counts (including spotlight and aerial counts, faecal counts, warren, burrow, den and nest counts), and tracking pads and feeding stations. |

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| | |
|---|---|
| Which **management units** may be included? | Measures of potential or actual impact on biological values, agricultural values, environmental values, recreational and social values and public health values. |
| What **management options** may be included? | Commercial management, crisis management, no management, local eradication and strategic management (sustained, targeted and one-off). |
| What **methods and techniques for controlling the weed problem** may be used? | Changing land management or production processes and practices (e.g., changing lambing times, changing sowing times and changing crops), modifying habitat, pasture management, weed control (poisoning, biological controls). |
| What methods and techniques for controlling animal pest problems may be used? | Changing land management or production processes and practices (e.g., changing lambing times, changing sowing times and changing crops), modifying habitat, pasture management and pest population control (shooting, poisoning, trapping, mustering, relocation, fumigation, sedation, exclusion fencing, biological controls, harvesting and tagging). |
| What sorts of damage and loss caused by pests may be relevant to this standard? | Loss of pasture, loss of livestock, loss of native fauna, loss of recreational and social amenity, increased incidence of disease vectors, reduced tourism, loss of crops, damage to fences, loss of recreational and social amenity, loss of native flora, soil disturbance and erosion, reduction in water quality and pollution. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in monitoring and evaluating the local pest management action plan requires evidence that appropriate sources of information have been checked, analysis of the positive and negative indicators of the action plan has been determined and recommendations for modifications to local action plans have been documented in a summary report. The skills and knowledge required to monitor the local weed management strategy must be **transferable** to a range of work environments and contexts. For example, this could include different pest species, report formats, action plans and local areas.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Local land management process.<br>• Local production process.<br>• Relevant legislative and regulatory requirements.<br>• Environmental protection legislation.<br>• Weed control methods and techniques.<br>• Social and environmental issues.<br>• Statutory requirements for weed control. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Collate available data.<br>• Estimate costs and advantages.<br>• Communicate, negotiate and liaise with other statutory authorities, agencies and stakeholders.<br>• Assess data against objectives and performance criteria.<br>• Compile report of strategy evaluation.<br>• Recommend modifications to local action plans. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Establishing and maintaining consultation and liaison processes with land users and stakeholders. |
| 2. How can **information be collected, analysed and** | Analysing pest management data. |

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|---|---|---|
| | **organised (2)**? | |
| 3. | How are **activities planned and organised (2)**? | Organising pest management activities. |
| 4. | How can **team work (2)** be applied? | Building and maintaining working relationships with local land users. |
| 5. | How can the use of **mathematical ideas and techniques (2)** be applied? | Collating and determining significance of data. |
| 6. | How can **problem-solving skills (2)** be applied? | Analysing pest management data. |
| 7. | How can the **use of technology (2)** be applied? | Collating data and documenting planning activities. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3501A Assist in the implementation of legislation

This competency standard covers the process of assisting the implementation of pest control legislation and involves the provision of both support and advice to landholders to ensure their compliance. It requires the ability to identify, investigate and act on non-compliance issues. Assisting in the implementation of legislation requires knowledge of relevant legislation and regulations, weeds occurring in the locality and appropriate control options, communication techniques, conflict avoidance, negotiation techniques and resolution and individual and property rights.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Identify non-compliance with legislation | 1.1 | **Non-compliance** is identified through complaint or other means, and recorded in accordance with legislative and enterprise requirements. |
| | | 1.2 | Senior staff are notified in accordance with legislative and enterprise requirements. |
| 2. | Investigate non-compliance | 2.1 | Land ownership is established and responsibilities of all parties are established in line with State legislation. |
| | | 2.2 | Further information is obtained on possible non-compliance with legislation. |
| | | 2.3 | Landowner is contacted and notified of infestation and control requirements in compliance with enterprise guidelines and supervisors instructions. |
| | | 2.4 | Policies of right of entry are adhered to in communicating with landowners. |
| | | 2.5 | Accurate records are maintained in line with **agency policies**. |
| 3 | Act on non-compliance issues | 3.1 | Relevant notices are issued in accordance with **relevant legislation** and regulations, enterprise guidelines and supervisors instructions. |

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|---|---|
| 3.2 | Evidence is collected and findings are reported in accordance with enterprise guidelines or following supervisors instructions. |
| 3.3 | **Pest management advice** is provided to the landholder consistent with enterprise guidelines and legislative requirements. |
| 3.4 | Support is provided to landholders in the implementation of pest management programs in accordance with enterprise policy |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **relevant legislation** may be included? | State Noxious Weeds Acts, Clean Water Acts, and Local Authority regulations. |
| What **pests** are relevant to this competency standard? | Weeds and vertebrate pests. |
| What **pest management advice** may be relevant to this standard? | Providing an interpretation of legislative requirements or reference to appropriate sources of advice where required. |
| What can **other means** include? | Observation or reports from a secondary source. |
| What may **agency policies** specify? | Accurate record keeping, observation procedures, inspection procedures, procedures or protocols for entry onto private property, storage protocols, protocols for preparation and serving of notices. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in assisting in the implementation of legislation requires evidence that non-compliance against legislation is identified and investigated and that appropriate action is carried out to resolve the situation. The skills and knowledge required to assist in the implementation of legislation must be **transferable** to a range of work environments and contexts. For example, this could include different types of pests, properties, legislation and investigative techniques.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Relevant legislation and regulations.<br>• Pests occurring in the locality and appropriate control options.<br>• Communication techniques.<br>• Conflict avoidance and resolution.<br>• Individual and property rights.<br>• Negotiation techniques. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Identify non-compliance with legislation.<br>• Investigate non-compliance.<br>• Act on non-compliance issues.<br>• Communicate effectively with landowners and field staff.<br>• Provide considered advice in a manner that minimises conflict and maximises compliance.<br>• Accurately observe and report.<br>• Accurately document activities. |

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Verbal and written communications with landholders, and supervisors and authorities. |
| 2. How can **information be collected, analysed and organised (2)**? | Written, photographic, and reference to public documents. |
| 3. How are **activities planned and organised (1)**? | According to enterprise and legislative procedures and protocols. |
| 4. How can **team work (1)** be applied? | Through communication and sharing of information, and field support. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Determining size and scope of pest infestations and required work to comply with legislation. |
| 6. How can **problem-solving skills (2)** be applied? | Through exploration of a range of options to resolve non-compliance issues. |
| 7. How can the **use of technology (1)** be applied? | Recording, transmittal and storage of information. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3502A Carry out inspection of designated area

This competency standard covers the process of inspection of designated areas for specific purposes. It requires the ability to define area and target of inspection, carry out risk assessment and minimisation, prepare for and carry out inspection, and clean and store equipment and materials following inspection. Inspecting designated areas requires knowledge of recognition and biological classification, risk management, inspection procedures and techniques, monitoring techniques and reporting protocols.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Define area and target of inspection | 1.1 | Location and size of area to be inspected identified consistent with management strategy and/or supervisors instructions. |
| | | 1.2 | Frequency of inspection set according to management strategy. |
| | | 1.3 | Targets of inspection determined from Management Strategy. |
| | | 1.4 | Characteristics and favoured conditions for targets confirmed with management. |
| 2 | Carry out Risk Assessment and minimisation | 2.1 | Time and duration of inspection checked and relevant personnel notified. |
| | | 2.2 | Risks to the environment associated with the inspection are identified in accordance with statutory and local authority requirements. |
| | | 2.3 | Precautions to minimise environmental risks associated with the inspection are taken in line with statutory and local authority standards. |
| | | 2.4 | Hazards associated with the inspection are identified in accordance with OHS standards. |
| | | 2.5 | Precautions to minimise hazards are taken in accordance with OHS standards. |

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| 3 | Prepare for inspection | 3.1 | Vehicles, equipment and materials required for the inspection are identified. |
| | | 3.2 | Vehicles, equipment and materials are checked for serviceability following manufacturers guidelines. |
| 4 | Carry out inspection | 4.1 | Vehicles are operated and driven within statutory requirements and industry practice. |
| | | 4.2 | Inspection is carried out within the specified area and following the requirements of the integrated pest management strategy. |
| | | 4.3 | Target occurrence is identified and recorded as required by the management strategy and enterprise practice. |
| | | 4.4 | Statutory requirements and enterprise protocols regarding entering private property are fulfilled where appropriate. |
| | | 4.5 | Dealings with landholders or their employees follow regulatory requirements and enterprise procedures. |
| | | 4.6 | Precautions to minimise risks to the environment are implemented in accordance with statutory and local authority requirements. |
| | | 4.7 | Precautions to minimise hazards are implemented in accordance with OHS standards. |
| | | 4.8 | Incursions of non-targeted threats are noted and reported on. |
| 5 | Establish the impact of the specified target | 5.1 | Information on potential impacts is collected from stakeholders. |
| | | 5.2 | Data on environmental hazards resulting from target presence are collected and analysed from stakeholders or available information. |
| 6 | Prepare a report | 6.1 | Collated data, inspection records and analysis of findings are documented with appropriate recommendations in |

| | | |
|---|---|---|
| | | accordance with enterprise guidelines. |
| | 6.2 | Targets reported as required by legislation, regulation or enterprise guidelines. |
| | 6.3 | Report submitted to supervisor or other authority. |
| | 6.4 | **Samples** submitted in compliance with legislative requirements, regulations or enterprise guidelines. |
| | 6.5 | Equipment and materials are cleaned and stored following industry standards or enterprise practice. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **designated areas** may be included? | Farms, parks, reserves, roadsides, intertidal zones or other discrete areas as directed |
| Which **targets** may be included? | Plant and animal species and communities, threatened or endangered species, notifiable or noxious pests or animals, any species not previously identified in the region, weeds or animals which may present a high risk, fire risks and threats, and other targets requiring inspection for research or management purposes. |
| What **types of targets** may be relevant to this standard? | Those occurring in crops, pastures, rangelands, natural areas, aquatic and environmental pests. |
| What are **guides** and what form do they take? | Various printed forms or electronic databases. They may include drawings and/or photographs in colour or black and white, or a dichotomous key. |
| What **regional variations** may be included? | Coastal, arid, semi-arid, tropical and alpine regions. |
| Which **land uses** may be included? | Intensive or broad acre cropping, native or improved pastures, and conservation or regeneration areas. |

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|---|---|
| Which land values may be included? | Economic, biological values, agricultural values, environmental values, recreational and social values and public health values. |
| To whom might samples be submitted for positive **identification**? | Relevant authorities or other organisations with relevant expertise in identification. |
| Which **relevant legislation** may apply to this standard? | Acts and regulations relating to environmental protection, legislation and regulations relating to noxious weeds, native vegetation and wildlife, vertebrate pests, OHS regulations, common law requirements relating to property, stock, duty of care and due diligence. |
| What forms may **documentation** take? | Observation sheets and count records, recorded on paper or electronically. |
| What may be included as **resources**? | Tools, equipment, materials and human resources. |
| What types of **samples** are relevant to this competency standard? | Specimens of plants or animals, photographic records, evidence or examples of plant or animal presence or impact on area. |
| How might supporting and validating data be obtained? | By direct observation, GIS, satellite information and air-flown MSS. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in carrying out inspections of designated areas requires evidence that an area has been inspected for targets, appropriate records and reports are completed and that materials and equipment are properly cleaned and stored. The skills and knowledge required to carrying out inspections of designated areas must be **transferable** to a range of work environments and contexts. For example, this could include different inspection targets, recording systems, and designated areas.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Recognition and classification of local plant and animal species.<br>• Use of simple taxonomic or identification keys.<br>• Characteristics of inspection targets.<br>• Inspection procedures and techniques.<br>• Monitoring techniques.<br>• Reporting protocols.<br>• Map reading.<br>• Relevant land use processes.<br>• Relevant legislative and regulatory requirements including environmental protection legislation. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Define area and target of inspection.<br>• Carry out Risk Assessment and minimisation.<br>• Prepare for inspection.<br>• Carry out inspection.<br>• Identify targets and level of impact on site.<br>• Implement control measures.<br>• Monitor control methods.<br>• Record spatial and temporal information.<br>• Clean and store equipment and materials following inspection. |

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and
3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Through reporting to management and work team. |
| 2. How can **information be collected, analysed and organised (1)**? | Through completion of field notes, photographic records and samples. |
| 3. How are **activities planned and organised (2)**? | According to procedures and policies set out in management plan. |
| 4. How can **team work (2)** be applied? | In agreeing with respective work roles of staff involved in carrying out inspections. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Counting and calculations relating to presence of target in designated areas. |
| 6. How can **problem-solving skills (1)** be applied? | Identifying and locating presence and distribution of targets. |
| 7. How can the **use of technology (1)** be applied? | Communicating with others, monitoring results and keeping records. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3505A Maintain natural areas

This competency standard covers the process of maintaining places of natural significance. It requires the ability to plan maintenance works, undertake maintenance, and report completion of activities. Maintaining natural areas requires a knowledge of ecology, plant and animal species, relevant legislation, natural and human threats to places of natural significance, pollution sources and damage potential, legislation under which enterprise operates, enterprise procedures for reporting maintenance works, and selection and application of protective structures, devices and signs.

**Note: For Indigenous contexts, the delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Plan maintenance works | 1.1 | Movement through place is planned to minimise disturbance and degradation. |
| | | 1.2 | Legislative requirements, Codes of Practice and the relevant management strategy and plan are identified. |
| | | 1.3 | Equipment, machinery and materials for maintenance works are determined and obtained. |
| | | 1.4 | Where required, **stakeholders** are consulted about pending maintenance works. |
| 2 | Undertake maintenance | 2.1 | Activity maintenance works conform to relevant **risk control measures** and practices, and are in accordance with enterprise guidelines. |
| | | 2.2 | Interim **protective measures** are taken to avoid degradation and disturbance during maintenance works. |
| | | 2.3 | Activities of personnel and visitors are monitored to reduce risks to the significance of the place. |

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|---|---|---|---|
| 3 | Report completion of activities | 3.1 | Site is made good on completion of works. |
| | | 3.2 | Equipment and machinery is cleaned and stored according to enterprise guidelines. |
| | | 3.3 | Excess materials are removed from site and stored or disposed of according to enterprise guidelines. |
| | | 3.4 | Completed maintenance works are reported to supervisors to enterprise and legislative requirements and best practice guidelines and Codes of Practice. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What aspects of **natural significance** may be relevant to this standard? | Species diversity, ecosystem diversity and community diversity, rarity of species and uniqueness of related ecosystems, geological diversity including land forms, degree to which geological features and land forms are significant, potential natural integrity, impact of any degradation and/or disturbance, potential interrelationship with cultural values including Indigenous and other values, organisation policy and practice, aesthetic dimensions, interface/integration with productive lands, water catchments, river systems, urban areas, coastal and marine environments and presence of minerals. |
| Which **stakeholders** may be included? | The enterprise management, a government agency, private organisations, enterprises or individuals, visitors to the park/reserve, community groups involved in environmental matters including any ‘friends of the park’, local population and general public, business operating in park such as tour operators, concessionaires and accommodation operators. |

| | |
|---|---|
| To which people do **risk control measures** apply? | Visitors to a place or area for natural and/or cultural tourism purposes, tour guides from other enterprises, bus drivers, aircraft and vessel crew, contractors, scientific researchers, campers, hikers, friends of park/reserve committees and other voluntary agencies, cultural groups, nearby landholders, and Indigenous peoples. |
| What **protective measures** may be included? | Exclusion from dangerous and/or sensitive areas, protection of flora, fauna, topsoil and other features by physical barriers and/or administrative controls, escorting visitors, construction of works and protective barriers, visitor education, briefing of contractors and others on risks and administrative control procedures and measures. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in maintaining natural areas requires evidence that maintenance works have been planned and carried out in places of natural significance according to enterprise guidelines and industry best practice. The skills and knowledge required to maintain natural areas must be **transferable** to a range of work environments and contexts. For example, this could include different environments, sites of natural significance, and maintenance activities.

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**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:

- Ecology in land based, coastal zones and/or marine parks.
- Marine, shore and land based species.
- Applicable State/Territory and Commonwealth legislation covering parks, conservation, environmental protection and heritage.
- Natural and human threats to places of natural significance.
- Pollution sources and damage potential.
- Basic protection/rehabilitation methods.
- Legislation under which enterprise operates.
- Enterprise procedures for reporting maintenance works.
- Selection and application of protective structures, devices and signs.

**What specific skills are needed to achieve the performance criteria?**

To achieve the performance criteria, some complementary skills are required. These skills include the ability to:

- Plan maintenance works to achieve minimal deleterious impacts.
- Undertake maintenance with minimal deleterious impacts.
- Report completion of activities.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Reports to management. |
| 2. How can information **be collected, analysed and organised (2)?** | According to enterprise policy and procedures. |
| 3. How are **activities planned and organised (3)?** | Equipment and materials. |
| 4. How can **team work (2)** be applied? | Maintenance works |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Timing and costing associated with maintenance works. |
| 6. How can **problem-solving skills (3)** be applied? | Analysing threats to place. |
| 7. How can the **use of technology (2)** be applied? | Equipment and machinery. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

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# RTD3509A Collect and preserve biological samples

This competency standard covers the process of collecting and preserving biological samples as part of a monitoring program. It requires the ability to plan for collecting and preserving, prepare equipment and resources, carry out collecting and preserving, and complete collecting and preserving activities. Collecting and preserving biological samples requires knowledge of industry biological sampling and preserving guidelines and protocols, flora and fauna, environmental legislation, and sampling and preserving methods.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1. | Plan for collection | 1.1 | Sampling schedule is read/heard and confirmed with manager. |
| | | 1.2 | Sampling site **location** is confirmed and approval obtained for site access following enterprise and **legislative** guidelines. |
| | | 1.3 | **Samples** to be collected and preserved are identified by supervisory staff. |
| | | 1.4 | **Equipment** requirements for biological sampling and preserving are determined and arranged. |
| | | 1.5 | Range of likely operating conditions, hazards and difficult/sensitive environments are assessed for impact on sampling and testing. |
| 2 | Prepare equipment and resources | 2.1 | Equipment required for sampling and preserving is sourced according to sampling procedures. |
| | | 2.2 | Equipment is checked for availability and serviceability in accordance with enterprise procedures. |
| | | 2.3 | Data or record sheets/books are collected for use. |
| | | 2.4 | Equipment, data sheets and personnel are moved to sampling sites without injury or damage and readied for use. |

| | | | |
|---|---|---|---|
| 3 | Carry out biological sampling and preserving procedures | 3.1 | Samples are collected in accordance with sampling plan and enterprise procedures and industry protocols/guidelines. |
| | | 3.2 | Samples are preserved and recorded in accordance with sampling standards and guidelines. |
| | | 3.3 | Samples for external analysis are prepared, packaged and sent to laboratory in accordance with sampling schedule and laboratory standards. |
| | | 3.4 | Specific and general observations including information on relevant ambient and antecedent environmental conditions are made in accordance with monitoring schedule. |
| | | 3.5 | Equipment operation and work practices conform to **occupational health and safety requirements.** |
| | | 3.6 | Collection outcomes including presentation of samples are reported and delivered in accordance to enterprise guidelines. |
| 4 | Complete collection of biological sampling activities | 4.1 | Equipment and clothing is cleaned, sanitised, repaired and stored in accordance with enterprise procedures. |
| | | 4.2 | Damaged or malfunctioning equipment is repaired on site or sent to manufacturer or specialist. |
| | | 4.3 | Sampling results and observations are accurately recorded on data sheets and forwarded in accordance with enterprise procedures. |
| | | 4.4 | Changes in field conditions and equipment are conveyed to supervisor according to enterprise procedures. |

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## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What sampling site **locations** may be relevant to this standard? | Rivers, estuaries, lakes, dams, wetlands, waterways, coastal foreshores and waters, intertidal areas, national parks, and rural lands. |
| What types of **samples** may be included? | Macro invertebrates, aquatic vegetation, intertidal organisms, soil and water. |
| What **environmental legislation** may be included? | Fisheries Management Acts, threatened species conservation acts. |
| What **equipment** may be included? | Electronic machines, probes, grabs, nets, dredges, plankton nets, water sample bottles, bailer, still and video cameras, specialised machinery, identification keys and preserving equipment, kick seines, containers for holding and sorting samples, plastic buckets, hand-held magnifying glasses, tweezers or forceps, small vegetable brushes, wading boots, rubber gloves, thermometer, yardstick, sample record and assessment form, pencils, and clipboard and relevant field guides. |
| Which **occupational health and safety requirements** may be included? | Codes of practice, regulations and/or guidance notes which may apply in a jurisdiction, and enterprise-specific occupational health and safety procedures, policies or standards. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in collecting and preserving biological samples requires evidence that biological samples have been appropriately collected and preserved for a given site according to prescribed enterprise procedures, standards and principles, collecting schedules and industry best practice. The skills and knowledge required to collect and preserve biological samples must be **transferable** to a range of work environments and contexts. For example, this could include different locations, environments, samples and collecting techniques.

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| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Hydrological cycle.<br>• Field procedures for biological sampling and preservation.<br>• Collecting equipment and methods.<br>• Preservation equipment and processes.<br>• Basic habitat assessment.<br>• Water quality issues.<br>• Fauna and flora recogition relevant to sampling activities.<br>• Relevant environmental legislation. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Plan for collection.<br>• Prepare equipment and resources.<br>• Carry out biological sampling and preserving procedures.<br>• Complete collection of biological sampling activities. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Recording information regarding collecting and preservation activities. |

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| | |
|---|---|
| 2. How can **information be collected, analysed and organised (3)**? | Through completion of record sheets, taking of samples for external analysis and recording of observations. |
| 3. How are **activities planned and organised (3)**? | Using appropriate equipment and in accordance with enterprise guidelines. |
| 4. How can **team work (3)** be applied? | Cooperation with others in collecting and preserving activities. |
| 5. How can the **use of mathematical ideas and techniques (2)** be applied? | Through recording scope and extent of activities and samples collected, using results and reporting to supervisor. |
| 6. How can **problem-solving skills (2)** be applied? | Dealing with unforeseen situations when carrying out collecting and /or preserving. |
| 7. How can the **use of technology (2)** be applied? | Use of field equipment and machinery. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3706A Maintain biological cultures

This competency standard covers the process of maintaining biological control agents for weed control prior to release in an experimental or field situation. It requires the ability to prepare and propagate biological agent media, maintain and monitor cultures and harvest and store cultures. Maintaining biological cultures requires knowledge of the range of media available for culture maintenance, culturing and media preparation techniques, laboratory and glasshouse procedures and available biological control agents and their use.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Prepare and propagate **bioagent** media | 1.1 | Bioagent media to suit the host and target species are identified, selected and accessed consistent with enterprise procedures or integrated weed management strategy where applicable. |
| | | 1.2 | Required media are prepared in line with established procedures and **laboratory policy.** |
| 2 | Obtain bioagent cultures | 2.1 | Cultures are procured from established sources and microclimate maintained in transport to the laboratory. |
| | | 2.2 | **Cultures** are transferred to growing **environment** in strict compliance with laboratory policy. |
| 3 | Maintain and monitor cultures | 3.1 | Cultures are regularly checked as an integral part of work routines. |
| | | 3.2 | Optimum environmental conditions are maintained to maximise culture growth and condition. |
| | | 3.3 | Observations are recorded and abnormalities are reported to the appropriate authority. |
| 4 | Harvest and store cultures | 4.1 | Routine **monitoring of culture** growth identifies the need for harvest and agent release. |

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| 4.2 | Harvesting program is determined in line with program requirements. |
| 4.3 | Harvest operations are completed and cultures are transferred to storage in accordance with laboratory policy. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which **bioagents** may be included? | Plants, vegetable, agars, soil and other suitable media. |
| Which **laboratory policy** standards may be prescribed? | Hygiene, cleaning and sterilisation, quarantine, culture storage and monitoring, recording and reporting. |
| How might the **culture environment** be maintained? | Food, temperature, light, water, humidity and habitat. |
| How may **monitoring of cultures** be undertaken? | By observing and recording the health of the culture, population and growth stage. |
| What situations might the **release** of biological control agents be related to? | Field experiments, glasshouse experiments, pot experiments and field release. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in maintaining biological cultures requires evidence that a biological agent is maintained and stored in an effective way to optimise its potency on targeted weed species. The skills and knowledge required to maintain biological agents must be **transferable** to a range of work environments and contexts. For example, this could include alternate bioagents, storage requirements and laboratories.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• The range of media available for culture maintenance.<br>• Culturing and media preparation techniques.<br>• Laboratory and glasshouse procedures.<br>• Available biological control agents and their use.<br>• The broad range of pest species that are to be targeted. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Prepare and propagate bioagent media.<br>• Obtain bioagent cultures.<br>• Maintain and monitor cultures.<br>• Harvest and store cultures. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (1)** be applied? | Written and verbal communication with suppliers, colleagues, supervisors and managers. |
| 2. How can **information be collected, analysed and organised (2)**? | Observation, measurement of quantities and reporting to supervisor. |
| 3. How are **activities planned and organised (2)**? | According to characteristics of biological agents and enterprise guidelines. |

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| | |
|---|---|
| 4. How can **team work (1)** be applied? | Working closely with colleagues, landholders and supervisor prior to the release of the agent. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Calculation of quantities and supplies of biological agents. |
| 6. How can **problem-solving skills (1)** be applied? | Addressing difficulties that may arise during storage and maintenance. |
| 7. How can the **use of technology (2)** be applied? | Monitoring health, handling and reporting on biological agents. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function. In some situations, this unit can be assessed concurrently with RUC384PDA Release biological agents.

For information about assessing this competency standard for consistent performance and where and how it may be assessed, refer to the Assessment Guidelines for this Training Package.

# RTD3811A Coordinate board/committee elections

This competency standard covers the process of coordinating committee or board elections for an unincorporated group or incorporated association. It requires the ability to call for nominations, conduct elections, promote a positive election atmosphere and declare results. Coordinating board/committee elections requires a knowledge of articles, rules and practice of the group, election procedures used by other groups and in other voluntary organisations, voting method to be used, and community and cultural perspectives.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Seek nominations | 1.1 | **Election requirements** required under the rules and past practice are identified to establish correct election procedures. |
| | | 1.2 | Nominations are called for officers and committee positions that will become vacant according to the group/association **rules** and practice. |
| | | 1.3 | Nominations are checked for validity according to the group/association rules and practice. |
| | | 1.4 | Procedures to fill positions where there are no nominations are implemented according to the group/association rules and practice. |
| 2 | Conduct elections | 2.1 | Nominations for uncontested positions are declared filled according to the group/association rules and practice. |
| | | 2.2 | Election date is set according to group/association rules and practice. |
| | | 2.3 | Ballot papers are prepared according to the number of nominations and the **voting method** described in the group/association rules and practice. |
| | | 2.4 | Voting is managed to ensure a fair ballot by persons eligible to vote according to the group/association rules and practice. |

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| | | 2.5 | Any voting irregularities are assessed for impact on result, with any invalid elections being declared void. |
| 3 | Promote a positive election atmosphere | 3.1 | Positive attitude of co-operation between candidates is promoted to maintain group harmony. |
| | | 3.2 | Issues and complaints are addressed in a positive manner according to the rules, to ensure group satisfaction with the election process. |
| | | 3.3 | Minority interests are facilitated to ensure equitable representation. |
| 4 | Declare results | 4.1 | Votes are counted using a **counting method** that ensures a fair count according to the group/association rules and practice. |
| | | 4.2 | Results are announced or provided to the group/association chair according to the group/association rules and practices. |
| | | 4.3 | Records of results are completed according to group/association rules and practice. |
| | | 4.4 | Grievances are addressed according to articles of association, group rules and practice. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What are the **election requirements** relevant to this standard? | The vacancies, procedures for election, eligible persons, time between elections are defined in the rules or practice. |
| Where would the **rules** of the association be found? | In the constitution or operational practice or rules of unincorporated group |
| What may be the **voting method** for this standard? | Show of hands, secret ballot, first past the post and preference. |
| What might be the **counting method**? | Show of hands by nominated persons and by ballot papers in a separate room by nominated persons. |
| What is meant by **past practice/practice**? | Previous informal procedures or procedures used by this or other groups in similar situations. |

| | |
|---|---|
| Which people could be included as **officers of the association**? | The positions named in the rules such as Chair/President, Assistant Chair/President, Secretary, Assistant Secretary, Treasurer, Public Officer and Promotions Officer. |
| What forms of **communication** may be relevant? | Promote elections and provide explanations to individuals and group on procedures. |
| What levels of **literacy** are included? | Read association/group rules and count ballot papers. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in coordinating board/committee elections requires evidence that a committee or board election for a community group has been properly coordinated according to community and agency guidelines and best practice procedures. The skills and knowledge required to coordinate board/committee elections must be **transferable** to a range of work environments and contexts. For example, this could include different community groups and local or cultural perspectives.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Articles, rules and practice of the group.<br>• Election procedures used by other groups and in other voluntary organisations.<br>• Voting method to be used.<br>• Understanding of range of community perspectives and perspectives brought by individuals to group. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Seek nominations.<br>• Conduct elections.<br>• Promote a positive election atmosphere.<br>• Declare results. |

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**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | By discussing at meetings or formally in writing with clients and stakeholders. |
| 2. How can **information be collected, analysed and organised (2)**? | Coordinating board/committee elections will require information to be gathered from a variety of external sources and organised for election purposes. |
| 3. How are **activities planned and organised (2)**? | Coordinating board/committee elections requires some planning election procedures and organising of board or committee members. |
| 4. How can **team work (3)** be applied? | Coordinating board/committee elections will require liaising with work teams and others to achieve outcomes. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical techniques can be applied in counting and declaring results. |
| 6. How can **problem-solving skills (2)** be applied? | During coordinating board/committee elections technical and/or organisational problems may arise requiring innovative solutions. |
| 7. How can the **use of technology (1)** be applied? | Technology may be required to prepare for elections and meetings, administer voting procedures and declare results. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

# RTD3812A Coordinate fund-raising activities

This competency standard covers the process of coordinating fundraising activities for local community groups or programs. It requires the ability to present ideas at meetings, approach and enlist support of volunteers, coordinate committees/teams, negotiate for sites and resources, plan and coordinate activities and implement general risk management. Coordinating fundraising activities requires a knowledge of scope of acceptable activities within various cultures/groups in the community, budgets for management of costs, basic money/cash handling and recording of expenses and income, permits required for fundraising activities and meeting procedures.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Seek fundraising ideas | 1.1 | Requirements for funds are identified to determine extent of fundraising. |
| | | 1.2 | Successful **fundraising activities** used by this or other groups are identified for further investigation. |
| | | 1.3 | Potential new fundraising activities are compared to existing methods to determine preferred fundraising activities. |
| | | 1.4 | **Potential fundraising** ideas are reviewed in conjunction with other leaders to identify preferred fundraising activity(s). |
| | | 1.5 | **Views of individuals** in groups are considered in determining preferred fundraising activities. |
| 2 | Select and develop ideas | 2.1 | Required resources and potential **net income** from preferred fund raising activities are estimated. |
| | | 2.2 | Selected fundraising activities are submitted with reasons to group for approval according to **group practices** to obtain group agreement. |
| 3 | Conduct fundraising | 3.1 | Volunteers to manage and/or support required activities in fundraising program are sought and duties negotiated. |
| | | 3.2 | Volunteers required to organise fundraising are organised into committee and/or teams. |

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| | | 3.3 | Fund raising activities comply with public safety, occupational health and safety, and other **legislative and local government requirements.** |
| | | 3.4 | Fundraising activities are supervised according to group requirements to ensure optimum return for group with available resources, and to present a positive image of the group. |
| | | 3.5 | **Cash handling** procedures are used to ensure security of money collected. |
| | | 3.6 | Sites of activities are checked to ensure they are tidy to requirements before and after. |
| | | 3.7 | Results from fundraising activities are recorded for review. |
| 4 | Review results | 4.1 | Results are reviewed and submitted to group for discussion. |
| | | 4.2 | Discussion on relative value of fundraising activities and potential suitability for future is coordinated. |
| | | 4.3 | Results and review are submitted to group management committee for noting, recording and further action. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Who might the **community group** include? | Community groups formed to further conservation or environmental objectives, under the National Heritage Trust, independently, or associated with the operation of a park/reserve. |

| | |
|---|---|
| What are **fundraising activities**? | Activities with the potential to provide a source of funds for the group's operation, from the group members, contacts of the group members, or from the wider community, activities seeking donations, payment for goods and services provided and funds from social activities such as local events, stalls and large scale community events and activities combined with promotion or sponsorship at community events to promote group, projects and/or program. |
| What are **potential fundraising** activities? | Those within the resources of the group to run, those which are permitted by laws or agreements that the groups has signed to complete, projects and sponsorship agreements. |
| What could the **views of individuals** include? | Personal views, ethical views, cultural and/or preferences and willingness to provide resources, support and/or participation. |
| What does **net income**/results mean? | Net income is after expense/costs of activity have been deducted; results include net income plus an additional promotion or resources provided by the activity. |
| What is meant by **group practices**? | Normal procedures used by the group to determine a course of action in a committee meeting, general meeting or informal meeting. |
| What may be included in Public Safety, OHS, **legislative and local government requirements**? | Hazard identification, risk assessment, establishing approach to control risks, obtaining permits, submitting for approval proposals for activities. |
| What does **cash handling** include? | Taking, checking, storing and banking of money received in cash or other tender. |
| What forms of **literacy** are included? | Maintenance of records of activity, financial records, rental/hiring agreements and development of promotional material for the activity. |
| What forms of **communication** may be relevant? | Development of ideas and enthusiasm in group, presentation of ideas to group and committee, obtaining consents and support from general community and deal with people who have strong opinions/characters. |
| For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet. | |

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in coordinating fundraising activities requires evidence that fundraising activities have been effectively and appropriately coordinated according to community and agency guidelines, and best practice procedures. The skills and knowledge required to coordinate fundraising activities must be **transferable** to a range of work environments and contexts. For example, this could include different community groups, programs and fundraising activities.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Network to seek ideas.<br>• Group practices/protocols.<br>• Scope of acceptable activities within various cultures/groups in the community.<br>• Budgets for management of costs.<br>• Basic money/cash handling and recording of expenses and income.<br>• Summarising results of activities.<br>• Basic financial statements.<br>• Public safety.<br>• Occupational health and safety approaches and procedures.<br>• Relevant local government by-laws.<br>• Permits required for some fundraising activities.<br>• Meeting procedures. |

| | |
|---|---|
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Presentation of ideas at meetings.<br>• Approach and enlist support of volunteers.<br>• Coordinate committees/teams.<br>• Negotiate for sites and resources.<br>• Plan and coordinate activities.<br>• Implement general risk management. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | By discussing, coordinating fundraising activities at meetings or formally in writing with clients and stakeholders. |
| 2. How can **information be collected, analysed and organised (2)**? | Coordinating fundraising activities will require information to be gathered from external sources and organised for effective outcomes. |
| 3. How are **activities planned and organised (3)**? | Coordinating fundraising activities requires extensive program planning and organising of others. |
| 4. How can **team work (3)** be applied? | Coordinating fundraising activities will require development and management of teams to achieve outcomes. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical techniques in relation to budgets for management of costs, basic money/cash handling and recording of expenses and income can be applied. |
| 6. How can **problem-solving skills (2)** be applied? | While coordinating fundraising activities organisational problems may arise requiring innovative solutions. |
| 7. How can the **use of** | Technology may be required to communicate with |

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|---|---|
| **technology (1)** be applied? | others and manage money. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

# RTD3813A Coordinate social events to support group purposes

This competency standard covers the process of coordinating social events in the context of a workplace or a community group, as a vehicle to create community interest and/or promote a program. It requires the ability to facilitate small ad-hoc groups to complete activities, coordinate group officers to perform appropriate roles in events, plan and follow-up tasks to be completed for event. Coordinating social events to support group purposes requires knowledge of resources available in the community, costing for events, basic money handling and group financial procedures, and community views and cultures.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Plan **social events** | 1.1 | Place of social events within group's activities is identified to ensure contribution to **group goals.** |
| | | 1.2 | Group members' preferences for activities and frequency are obtained to obtain their support. |
| | | 1.3 | Concept, timing and **resources** required for social event are developed in cooperation with others to suit members' wishes and any **community** involvement. |
| | | 1.4 | **Community views** and **safety** issues are reviewed to ensure risk to group image and public safety is managed. |
| | | 1.5 | Social event is **promoted** to members and relevant section of the community. |
| | | 1.6 | **Personnel** and required resources are coordinated for availability at social event. |
| 2 | Coordinate activities | 2.1 | Location of social activity is prepared to cater for activity and people. |
| | | 2.2 | Coordination between people assisting in the social event is facilitated to provide a pleasant environment consistent with purpose of activity. |
| | | 2.3 | Availability of resources is checked to ensure event will occur as planned. |

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|---|---|
| 2.4 | Shortages in personnel and resources are managed to **minimise impact** on social event. |
| 2.5 | Visitors to events and members are welcomed and introduced to others to develop positive social environment. |
| 2.6 | Personnel are coordinated to restore location of social activity to its original condition. |
| 2.7 | Members' opinions of event are obtained to determine whether even should be repeated or altered. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this unit of competency. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| For what purposes might **social events** be held? | Promotion of group, project and programs to community, attract new members, celebrate event, develop group cohesiveness, and provide occasion for dignitary to meet members and community. |
| What form may **group goals** take? | They may be formal or informal. |
| What sorts of **resources** might be relevant to this unit? | Equipment, such as barbecues, cooking equipment and utensils, refrigeration or ice cooling, seating, amplification, marquees or other shelter, food, displays and promotional materials. |
| What might constitute the **community**? | Town, village, regional area, suburb or group of suburbs in a city or coastal region. |
| What might be included in **community views**? | Community cultures and beliefs, community viewpoints on activities, suitable locations, size of activities, and age ranges and sexes of people attending. |
| Which aspects of **safety** may be considered? | Public safety and occupational health and safety. |
| How might the event be **promoted**? | Personal or group or invitation from chairperson, circulars through community or community groups, formal invitation, with or without charge and through the media. |
| Who are the **personnel** that might be included? | Paid personnel, contract caterers and volunteers. |

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| | |
|---|---|
| What could be included to **minimise impact**? | Changing event sequence or timing, obtaining supplementary or alternative resources, and catering for changed weather conditions. |
| How could communication be used in this unit? | Developing consensus of opinion, obtaining 'volunteers' to take responsibility for part of activities, welcoming people at activity, introducing people and obtaining opinions. |
| How might literacy be useful? | In developing plans and promotional materials. |

For more information on contexts, environment and variables for training and assessment, refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in coordinating social events to support group purposes requires evidence that a social event has been successfully planned and that activities have been appropriately coordinated for a community group and event. The skills and knowledge required to coordinate social events to support group purposes must be **transferable** to a range of work environments and contexts. For example, this could include different types of events, community groups and locations.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Basic catering requirements.<br>• Resources available in the community.<br>• Basic costing for events.<br>• Basic money handling and group financial procedures.<br>• Resources required for different types of events.<br>• Negotiation of arrangements with caterers, hotels and clubs.<br>• Hiring and borrowing equipment.<br>• Group goals and aim of events.<br>• Community views and cultures. |

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| | |
|---|---|
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Facilitate small ad-hoc group to complete activities.<br>• Coordinate group officers to perform appropriate roles in events.<br>• Timely plan and follow-up tasks to be completed for event.<br>• Use social skills and etiquette.<br>• Manage any conflict.<br>• Serve customer. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Verbal and written communications occurs at committee meetings, through fliers and media articles advising of the event. |
| 2. How can **information be collected, analysed and organised (2)**? | Information gained in coordinating social events can be recorded onto a database and/or filed in a paper-based system, and may need to be used to support submissions for additional events and funding. |
| 3. How are **activities planned and organised (3)**? | Through consultation with representative groups and committees with an interest in the social event. |
| 4. How can **team work (3)** be applied? | Through organisation of social events with others stakeholders and/or committee members. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | In the estimating, purchasing and organisation of materials and equipment for social events, and in management of budgets and funds. |
| 6. How can **problem-solving skills (3)** be applied? | By dealing with unforeseen situations that may arise in the planning or conduct of a social event. |

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| | |
|---|---|
| 7. How can the **use of technology (1)** be applied? | In the keeping of records, and use of electrical/electronic equipment at social events. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

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# RTD3814A Present proposed courses of action to meeting

This competency standard covers the process of providing formal or semi-formal presentations to a meeting to obtain consent for a course of action or as part of a program submission. It requires the ability to seek information from sources of knowledge and advice, develop solutions on own or in small groups, design a course of action and documentation and present recommendations to a meeting. Presenting proposed courses of action to meeting requires a knowledge of sources of knowledge and advice appropriate to submission, structure for presenting reasoned submissions, basic costing and cost/benefit analysis and cultural viewpoints in the community.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Develop course of action and documentation | 1.1 | Course of action related to **goal, action strategy**, **project** or issue is identified to solve a problem or to advance the group. |
| | | 1.2 | Alternative courses of action are identified and compared to proposed course of action to find best alternative. |
| | | 1.3 | Known **legislative and ethical requirements** and **diverse viewpoints** are identified for inclusion in course of action. |
| | | 1.4 | Reason(s) for proposed course of action are identified including costs and benefits, for inclusion in presentation. |
| 2 | Present recommendation(s) | 2.1 | Recommendations are presented to **committee** with reasons for approval. |
| | | 2.2 | Reasons for selection of preferred course of action over alternatives are presented to committee as required for its consideration. |

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## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What **goal, action strategy** might be included in this standard? | Goals related to broad objectives of group, action strategy relates to broad set of actions agreed to by group to achieve goals. |
| What is meant by the term **project**? | Discrete series of actions leading to defined outcome(s), which are eligible for funding under a relevant program or for which private funding may be sourced. |
| Which **legislative or ethical requirements** may be relevant to this standard? | Those related to program or course of action, including fair dealing, handling of contentious issues or strong opinions. |
| From where may **diverse viewpoints** come? | Cultural or community sector background, e.g., indigenous peoples, migrants and women. |
| What is the **committee**? | Committee of management of the group or sub-committee. |
| How could the context of the **proposal** be described? | Development of small proposal on own, development of large proposal as member of a sub-group and demonstrating input at each stage of submission. |
| What forms of **communication** may be relevant? | Promote elections and provide explanations to individuals and group on procedures. |
| What levels of **literacy** are included? | Read association/group rules and count ballot papers. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in presenting proposed courses of action to meeting requires evidence that a course of action has been properly prepared and presented to a meeting according to community and agency guidelines and best practice procedures. The skills and knowledge that are required to present a proposed course of action to meeting must be **transferable** to a range of work environments and contexts. For example, this could include different community groups, actions, presentation techniques and community programs.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Sources of knowledge and advice appropriate to submission, e.g., library, coordinator/leader etc.<br>• Structure for presenting reasoned submissions.<br>• Basic brainstorming techniques.<br>• Basic costing.<br>• Basic cost/benefit analysis.<br>• Cultural viewpoints in the community. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Seek information from sources of knowledge and advice.<br>• Develop solutions on own or in small groups.<br>• Develop course of action and documentation.<br>• Present recommendations to a meeting. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (3)** be applied? | By presenting proposed courses of action to meeting. |
| 2. How can **information be collected, analysed and organised (2)**? | Presenting proposed courses of action to meeting will require information on goals and strategies to be gathered organised for meetings. |
| 3. How are **activities planned and organised (2)**? | Presenting proposed courses of action to meeting requires some planning and organising of information and others. |
| 4. How can **team work (2)** be applied? | Presenting proposed courses of action to meeting will require coordination of self and others in a team. |
| 5. How can the use of **mathematical ideas and techniques (2)** be applied? | Mathematical techniques such as basic costing and cost/benefit analysis could be applied. |
| 6. How can **problem-solving skills (3)** be applied? | While presenting proposed courses of action to meeting technical, organisational and cultural problems may arise requiring complex solutions. |
| 7. How can the **use of technology (2)** be applied? | Technology may be required to prepare and deliver information for meetings. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

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# RTD3815A Represent group at functions

This competency standard covers the group promotional activity of representing group in community or to another group. It requires the ability to speak publicly and make presentations to small groups. Representing a group at functions requires knowledge of program, group and projects (current and planned), sources of further information, social norms and local cultural expectations for different community groups.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Represent group | 1.1 | Group is represented at **meetings** to promote its image. |
| | | 1.2 | Dress and decorum complies with **social expectations** to present a positive group image. |
| | | 1.3 | **Information** is provided to individuals inquiring about the group. |
| 2 | Make **presentations** | 2.1 | Short presentations are made to promote group and respond to other groups. |
| | | 2.2 | Information provided in presentations and to individuals is relevant, accurate and positive. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Which types of **meetings** may be included? | Community meetings, regional meetings, school meetings and meetings between groups to plan social and community events. |
| What is meant by the term **social expectations**? | Degree of formality or informality, purpose of meeting, media presence, presence of dignitaries, social norms and diverse cultures, backgrounds and perspectives, and cultural expectation of individuals and groups present. |

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| | |
|---|---|
| What sort of **information** may be relevant in this standard? | About the program, group, projects, about environmental/conservation issues at general and local levels to range of people in community, e.g. adults, business people, potential sponsors, children, tertiary students, tourists, and it may be purely verbal or include written information such as brochures, plans and invitations to activities. |
| What types of **speeches** may be included? | Formal prepared short speeches, 'off the cuff' short speeches and responses, ad-hoc responses, informal answers to questions in a public, school or community setting, in business or regional meetings, all of which should comply with social expectations and diverse cultures, backgrounds and perspectives. |
| What could be included in the **program**? | Commonwealth Government community programs under the Natural Heritage Trust, Rural Industry Programs, Business Programs and State Government community programs related to the environment. |
| What is meant by the **project**? | Discrete series of actions leading to defined outcome(s) which are eligible for funding under a relevant program, or for which private funding may be sourced. |
| What levels of **literacy** are included? | Research and interpret general and specific information on program, environmental issues and projects. |
| What forms of **communication** may be relevant? | Seeking information from group and other coordinators and leaders, one-to-one and small group presentation to different community members, public speaking to a range of audiences, and handling contentious issues with sensitivity to diverse viewpoints. |
| For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet. | |

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## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in representing group at functions requires evidence that a group has been appropriately represented at a function and that a short speech or presentation has been delivered according to community and agency guidelines and best practice procedures. The skills and knowledge required to represent group at functions must be **transferable** to a range of work environments and contexts. For example, this could include different functions, community groups and programs.

| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• General knowledge of program, group and projects (current and planned) and sources of further information.<br>• Social norms and local cultural expectations for different community groups. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Speak publicly.<br>• Make presentations to small groups. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Through verbal and written approaches before and after functions, and presentations at functions. |
| 2. How can **information be collected, analysed and organised (2)**? | Through recording in notes books, keeping a diary, collecting personal/business cards and maintenance of electronic /paper-based database |

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| | of stakeholders and/or clients. |
| 3. How are **activities planned and organised (1)**? | According to enterprise guidelines and protocols, requests from and expectations of those responsible for functions. |
| 4. How can **team work (2)** be applied? | In the joint preparation and delivery of presentations at functions. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | In collecting and analysing data for use in presentations. |
| 6. How can **problem-solving skills (1)** be applied? | In dealing with unforeseen problems arising from difficulties in attending functions and with the delivery of presentations. |
| 7. How can the **use of technology (1)** be applied? | In use of microphones, PowerPoint and/or overhead projectors, in the delivery of presentations. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

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# RTD3816A Service committees

This competency standard covers the process of organising meetings for committees and sub-committees at the group and regional levels to support the operation of community groups. It requires the ability to use office equipment, take notes at meetings, plan events, communicate with committee members and manage simple budgets. Servicing committees requires knowledge of meeting procedures, local facilities for meetings, local arrangements for authorising expenditure, local community activities and office and related business procedures.

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Organise meetings | 1.1 | Purpose of meeting(s) is clarified with the **chair, secretary or coordinator.** |
| | | 1.2 | Schedule of meetings is prepared and maintained in line with any **group, regional and/or agency requirements.** |
| | | 1.3 | **Venue** and date of meeting is organised according to meeting schedule, group or regional requirements and within any budget constraints. |
| | | 1.4 | Participants are advised of any changes to original meeting details. |
| | | 1.5 | All appropriate individuals are advised of details of meetings and followed up for confirmation of attendance according to **instructions.** |
| | | 1.6 | Any apologies are accepted and accurately recorded for presentation at meeting. |
| | | 1.7 | Meeting room is set up in a timely manner to suit arrangements and according to instructions. |
| 2 | Prepare business papers for meetings | 2.1 | Notice of meeting and agenda are accurately prepared to instructions and details provided. |
| | | 2.2 | Reports required for meeting are prepared or collated as appropriate. |
| | | 2.3 | All business papers are distributed to appropriate individuals following established group or regional meeting guidelines. |

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|---|---|---|---|
| 3 | Record and produce minutes of meeting | 3.1 | Notes are taken of meeting activities and decisions to ensure an accurate record of meeting. |
| | | 3.2 | Minutes of the meeting are produced in required format to provide an accurate account of meeting. |
| | | 3.3 | Minutes are checked for accuracy, approved and distributed to instructions. |
| 4 | Follow up after meetings | 4.1 | Action lists on work following from meetings are prepared according to instructions. |
| | | 4.2 | Requests for information from group members or officers are dealt with promptly and accurately. |
| | | 4.3 | Correspondence associated with meetings is dealt with in a timely manner according to instructions. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| Who might the **chair, secretary or coordinator** be? | Office holders organising the meeting, - the person planning the meeting may be one of these or additional administration support. |
| What are the **group, regional or agency requirements** that may be included? | To manage group or projects or manage regional activities according to program and/or contractual requirements and according to agency. |
| What might the **venue** requirements include? | Standard of venue, catering arrangements, presentation facilities, seating arrangements, associated facilities such as breakout rooms, dining areas etc., number of participants and special requirements. |
| How might the **instructions** be given? | They may be informal or formal arrangements covering meeting planning, notice of meeting, minute taking, distribution of documents, follow-up, correspondence and they may be in the form of procedures, notes, verbal or understood from prior procedures. |

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| What could be the **nature** of meetings? | Group management meetings, group general or annual meetings, training/extension sessions, sub-committee meetings related to a project or other specific activity, regional meetings for coordination or for management of regional plan and agency related meetings associated with management of program. |
| What could be included in the **program**? | Commonwealth Government community programs under the Natural Heritage Trust, Rural Industry Programs, Business Programs and State Government community programs related to the environment. |
| What are the **projects** that might be included? | Separate project activity funded under program for specific purposes which may require separate accounts and accounting records, and regular reporting may be required on project basis. |
| Who might the **agency** be? | Commonwealth, State or Territory department or authority managing a program. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in servicing committees requires evidence that committees have been effectively and efficiently serviced according to community and agency guidelines and best practice procedures. The skills and knowledge required to service committees must be **transferable** to a range of work environments and contexts. For example, this could include different committees, communities and groups.

**What specific knowledge is needed to achieve the performance criteria?**

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:

- Meeting procedures, both formal and informal.
- Agency guidelines where applicable or instructions.
- Relevant program and incorporation requirements for group where applicable.
- Local facilities for meetings.
- Local arrangements for authorising expenditure.
- Local community and activities.
- Office and related business procedures.
- Occupational health and safety and public safety requirements.

**What specific skills are needed to achieve the performance criteria?**

To achieve the performance criteria, some complementary skills are required. These skills include the ability to:

- Use office equipment, such as computers, photocopiers and facsimiles.
- Take notes at meetings.
- Plan events.
- Communicate.
- Negotiate basically.
- Manage simple budgets.

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | By discussing verbally or in writing committee servicing requirements with supervisors and others. |

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| 2. How can **information be collected, analysed and organised (1)**? | Servicing committees will require basic information to be gathered and organised accordingly. |
| 3. How are **activities planned and organised (2)**? | Servicing committees requires some planning and organising of people and resources external to the organisation. |
| 4. How can **team work (2)** be applied? | Servicing committees will require coordination of self and others in a team. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Basic mathematical techniques could be applied. |
| 6. How can **problem-solving skills (1)** be applied? | While servicing committee's technical problems may arise requiring simple solutions. |
| 7. How can the **use of technology (2)** be applied? | Technology may be required to prepare information for members of committees. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

# RTD3903A Work in an Indigenous community or organisation

This competency standard covers the process of operating within an Indigenous community or organisation while demonstrating an awareness of Aboriginal and Torres Strait Islander identity, history and spirituality. It requires the ability to gather information about Indigenous and non-Indigenous social structures, summarise actions of governments to deal with the effects of European colonisation, outline responses of Indigenous peoples and operate within an Indigenous community or organisation. Working within an Indigenous community or organisation requires knowledge of Indigenous communities and social structures, cultural customs and heritage, and the history of dispossession in Australia.

**Note: Delivery and assessment against this competency standard must comply with community protocols and guidelines and be supported by elders and custodians of country.**

| Element | | Performance Criteria | |
|---|---|---|---|
| 1 | Gather information about Indigenous and non-Indigenous social structures | 1.1 | Major **characteristics of the social structures** of Aboriginal and Torres Strait Islander societies are determined. |
| | | 1.2 | Main characteristics of the social structure of British society (1770-1790) are defined. |
| | | 1.3 | Impacts on Indigenous social structures following European colonisation are identified. |
| | | 1.4 | Examples of **resistance to European colonisation** are recorded. |
| | | 1.5 | Positive and negative effects of European colonisation are documented. |
| 2 | Summarise actions of governments to deal with the effects of European colonisation on Indigenous people | 2.1 | Major **legislation** and/or **policy directions of governments** that affect Aboriginal and Torres Strait Islanders are identified |
| | | 2.2 | Legal parameters relating to Indigenous land ownership, acquisition and management are defined. |

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| | | 2.3 | Impacts of laws and/or policies on social structures of Indigenous peoples are documented. |
| 3 | Outline responses of Indigenous peoples | 3.1 | Responses by communities relating to social impacts of European colonisation are identified. |
| | | 3.2 | Influences and trends affecting Indigenous peoples responses are determined. |
| | | 3.2 | The source of influences and trends affecting Indigenous peoples responses is identified. |
| | | 3.3 | Positive responses for the maintenance of Indigenous peoples' culture and/or growth of culture are recorded. |
| | | 3.4 | Personal responses to these trends are related. |
| 4 | Operate within an Indigenous community or organisation | 4.1 | Cultural protocols are observed according to community and/or organisational guidelines and procedures. |
| | | 4.2 | Community traditions and customs are respected and reflected in workplace policies and procedures. |

## Range of Variables

The Range of Variables defines the different contexts, work environments and parameters governing the performance of this competency standard. The variables chosen in training and assessment will need to reflect local industry and regional contexts.

| | |
|---|---|
| What does **colonisation** refer to in this standard? | Invasion, settlement, assimilation and integration. |
| What **characteristics of social structures** described in terms of main elements may be included? | Communal living arrangements, patterns of daily life, roles of men, women and children, class structures, predominant language used, main economic activities, main transport systems used, main information systems used, predominant religion or spiritual beliefs, main system of law and order, main type of government, main social upheavals experienced over specified periods of time and main problems experienced by the society over specified periods of time. |

| | |
|---|---|
| What may be included in **resistance to European colonisation**? | Aggressive actions undertaken by Indigenous people, passive actions undertaken by Indigenous people and passive actions by both Indigenous and non-Indigenous people. |
| Which **legislation** could apply to this standard? | Native Labourers Protection Act 1884, Protection and Restriction of the Sale of Opium Act 1901, Aborigines Preservation and Protection Act 1939-1946, Torres Strait Islanders Act 1939 – 1946, Anti-discrimination Act 1975, Corrective Services (Torres Strait) Act 1985, Corrective Services (Aborigines) Act 1985, Aborigines and Torres Strait Islanders (Land Holding) Act 1985, Aboriginal and Islander Affairs Act 1965, Royal Commission into Aboriginal (and Torres Strait Islander) deaths in custody, Aboriginal Councils and Associations Act 1985, Native Title Act 1993, Freedom of Information Act 1993, Aboriginal Land Act 1993, Reconciliation Act, Equal Opportunity and Racial Discrimination Acts. |
| What **policy directions of governments** related to Indigenous people may be included? | Colonisation, protectionism, assimilation, integration, self-determination, self-management and reconciliation. |
| What are the **major influences or trends** and issues which may be relevant? | Health, housing, land rights, schooling, education, employment, Reconciliation, National Inquiry into the Removal of Children, or any of the directions/policies described above. |

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

## Evidence Guide

**What evidence is required to demonstrate competence for this standard as a whole?**

Competence in working within an Indigenous community or organisation requires evidence that there is an awareness of Aboriginal and Torres Strait Islander identity, history and spirituality and that is reflected in work undertaken with Indigenous communities and/or organisations. The skills and knowledge required to apply understanding of Aboriginal and Torres Strait Islander identity, history and spirituality must be **transferable** to a range of work environments and contexts. For example, this could include different communities and organisations.

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| | |
|---|---|
| **What specific knowledge is needed to achieve the performance criteria?** | Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:<br>• Indigenous communities and social structures.<br>• Indigenous cultural customs and heritage.<br>• History of British society and dispossession in Australia.<br>• Indigenous history and impact of European colonisation. |
| **What specific skills are needed to achieve the performance criteria?** | To achieve the performance criteria, some complementary skills are required. These skills include the ability to:<br>• Gather information about Indigenous and non-Indigenous social structures.<br>• Summarise actions of governments to deal with the effects of European colonisation.<br>• Outline responses of Indigenous peoples.<br>• Operate within an Indigenous community or organisation. |

**What processes should be applied to this competency standard?**

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

| | |
|---|---|
| 1. How can **communication of ideas and information (2)** be applied? | Communication of ideas and information can be applied orally, in written and electronic formats. |
| 2. How can **information be collected, analysed and organised (2)**? | Information can be collected, analysed and organised through local area oral history, historical records and current references. |
| 3. How are **activities planned and organised (1)**? | Activities can be planned and organised according to community and organisational guidelines and best practice procedures. |

| | |
|---|---|
| 4. How can **team work (2)** be applied? | Teamwork can be applied through working within an Indigenous organisation or community. |
| 5. How can the use of **mathematical ideas and techniques (1)** be applied? | Mathematical ideas and techniques can be applied through completion of mathematical tasks required by Indigenous organisation or community. |
| 6. How can **problem-solving skills (2)** be applied? | Problem solving skills can be applied through assessing impact of European colonisation on social structures. |
| 7. How can the **use of technology (1)** be applied? | The use of technology can be applied through accessing and recording information on computer. |

**Are there other competency standards that could be assessed with this one?**

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

For information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, refer to the Assessment Guidelines for this Training Package.

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