



Australian Government

Department of Education, Employment and Workplace Relations

FPPRES340A Troubleshoot and rectify primary resource operations

Release: 1

FPPRES340A Troubleshoot and rectify primary resource operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to troubleshoot and rectify primary resource operations in the pulp and paper industry

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

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

Application of the Unit

Application of the unit

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

This unit generally applies to those who:

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

to meet safety, quality and productivity requirements

It does not include receiving or unloading materials, preparing and operating the woodchip production system or distributing woodchips

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

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

Elements and Performance Criteria

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

ELEMENT	PERFORMANCE CRITERIA
activities	working requirements/practices, SOP, and housekeeping requirements 4.2. Variations from specifications and machine operating faults are documented 4.3. Assessment and evaluation of causes of deviations and corrective actions undertaken are documented 4.4. Relevant information is communicated to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the skills and knowledge required for this unit.

Required skills

- Identifies, accesses and interprets relevant historical and operational data and information
- Uses required forms of communication in troubleshooting and rectifying primary resource operations
- Reads and interprets required documentation, procedures and reports
- Accesses, navigates and enters computer-based information
- Interprets instruments, gauges and data recording equipment
- Communicates effectively with personnel to assist with analysis and resolution of operational problems
- Assists others to identify and resolve operational problems in the workplace
- Identifies and actions systems, quality and equipment faults within level of responsibility
- Identifies causes and effects of faults and corrective action on associated processes
- Selects and uses appropriate troubleshooting methods
- Takes timely corrective action to maximise safety, quality and productivity
- Undertakes necessary calculations to aid troubleshooting, as required
- Identifies and monitors process control points
- Maintains situational awareness in the work area
- Sets up and operates test equipment
- Performs tests and interprets and records results if required
- Uses measuring equipment as required
- Uses routine checking procedures during plant and systems operation
- Conducts routine checks during plant and systems operation

REQUIRED SKILLS AND KNOWLEDGE

- Operates high risk (and non-high risk) load shifting equipment, as required
- Analyses and uses sensory information to adjust process to maximise safety, quality and productivity
- Uses electronic and other control systems to control equipment and processes as required

Required knowledge

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

Evidence Guide

EVIDENCE GUIDE

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

Overview of assessment

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

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

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

Context of and specific resources for assessment

A workplace assessment must be used to assess:

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

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

Method of assessment

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

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

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

EVIDENCE GUIDE

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

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

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

Range Statement

RANGE STATEMENT

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

Materials and supplies may include:

- hardwood or softwood logs
- lapped pulp
- waste paper
- woodchips
- supplies
- parts

Equipment may include:

- chipper
- hogger
- conveyor feed systems
- chipscreens
- hydraulic cutting equipment
- blades
- chainsaws
- magnetic detectors
- silos
- hopper and storage systems

RANGE STATEMENT

- docking saw
 - bark transferring systems and debarking machinery
 - chip spreaders and slingers
 - trailer or tipper
 - articulated loader
 - tracked dozer and front end loader
 - forklift
 - side loader
 - mobile crane
 - rigid loader
 - log loader
 - straddle truck
 - computer systems
 - electronic screens and alarms
 - process control systems
 - analogue and digital instrumentation
 - fully automated, semi-automated, manually operated plant and equipment appropriate to primary resource operations
- Accessories may include:
- protective and high visibility safety clothing and equipment
 - break down tools and equipment
 - electronic communication equipment
- Testing equipment may include
- drying ovens
 - sizing screens
 - computer processing equipment
- Electronic control systems may include:
- Digital Control System (DCS)
 - touch screens
 - robotics
- Attachments may include:
- fork lift attachments
 - crane hooks
 - chains
 - slings and straps
 - grabs
 - winches
- Legislation, regulatory, licensing and certification requirements may include:
- OHS and environmental requirements (local, state and commonwealth)
 - activity or task specific high risk (and non-high risk) load shifting licensing requirements

RANGE STATEMENT

Documentation, procedures and reports may include:

- SOP
- quality procedures
- environmental sustainability requirements/practices
- plant manufacturing operating manuals
- enterprise policy, procedures and guidelines
- oil or chemical spills and disposal guidelines
- plant isolation documentation
- safe work documentation e.g. plant clearance, job safety analysis, permit systems
- weighbridge dockets
- work orders
- tally sheets
- truck delivery dockets
- invoices
- non-conformance reports
- test results and reports
- log sheets (production and equipment)
- equipment performance data
- tonnage, input and conversion
- sampling and test reports
- Material Safety Data Sheets (MSDS)
- pile survey documents
- process and instrument diagrams

Maintenance may include:

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

Actions may include:

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

Communications may include

interaction with:

- work area personnel
- internal/external customers and suppliers
- team members

RANGE STATEMENT

- production/service coordinators
- maintenance services
- operational management
- statutory authorities

Situational awareness may include awareness of:

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

Forms of communication may include:

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

Sensory information may include:

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

Unit Sector(s)

Not Applicable