



**Australian Government**

# **PPMRES401 Troubleshoot and rectify primary resource operations**

**Release: 1**

# PPMRES401 Troubleshoot and rectify primary resource operations

## Modification History

| Release   | Comments                                                                                  |
|-----------|-------------------------------------------------------------------------------------------|
| Release 1 | This version released with PPM Pulp and Paper Manufacturing Training Package Version 3.0. |

## Application

This unit of competency describes the skills and knowledge required to identify, diagnose and rectify and report on process, equipment and quality faults in the primary resource operations of a pulp and/or paper manufacturing facility.

The unit applies to senior operators and production specialists who work in the pulp and paper manufacturing industry and troubleshoot and rectify complex faults that occur in continuous primary resource operations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Primary Resource Operations (RES)

## Elements and Performance Criteria

| Elements                                                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                                 | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                |
| 1. Identify and diagnose causes of process variation, plant and equipment faults | 1.1 Prepare for rectification of primary sources operations according to productivity requirements and workplace health and safety and environmental procedures<br>1.2 Identify safety hazards and determine risk control measures with relevant personnel<br>1.3 Interpret alarm system alerts and complete routine visual checks to |

| <b>Elements</b>                                                   | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                  | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                  |
|                                                                   | identify system faults<br>1.4 Undertake routine physical inspections of plant and process to identify faults<br>1.5 Access and interpret relevant sources of information, and check for recent work undertaken to assist analysis<br>1.6 Analyse collected information to identify cause and source of process variation, plant or equipment faults<br>1.7 Report fault and proposed corrective actions to relevant personnel           |
| 2. Rectify process variation, plant or equipment faults           | 2.1 Initiate emergency stop or shutdown, isolation and lock-out according to workplace health and safety and operating procedures<br>2.2 Isolate, repair or replace faulty equipment or instrumentation according to manufacturer specifications<br>2.3 Implement corrective operational adjustments and operator level maintenance requirements<br>2.4 Restore to normal operations and communicate verification to relevant personnel |
| 3. Identify and rectify product quality faults                    | 3.1 Identify product faults or variations by observation and systematic sampling and testing<br>3.2 Check load weight and dimensions to ensure they fall within capacity of equipment<br>3.3 Interpret test results to determine required operational adjustments<br>3.4 Rectify faults and causes or recommend further action according to operating procedures<br>3.5 Manage out-of-specification production                          |
| 4. Record and report troubleshooting and rectification activities | 4.1 Document process and product faults according to workplace requirements<br>4.2 Record and report diagnostic and corrective action processes to relevant personnel                                                                                                                                                                                                                                                                   |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill              | Description                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading            | <ul style="list-style-type: none"> <li>Interpret information from a range of documentation</li> </ul>                                                                                                                                                                                                                         |
| Writing            | <ul style="list-style-type: none"> <li>Complete accurate detailed records and reports for system and product faults, diagnostic and corrective action processes using the required format</li> </ul>                                                                                                                          |
| Oral communication | <ul style="list-style-type: none"> <li>Provide comprehensive information about problems with equipment and products using clear language and industry terminology</li> <li>Provide clear, unambiguous information about return to normal operations to system operators and other personnel</li> </ul>                        |
| Numeracy           | <ul style="list-style-type: none"> <li>Interpret numerical settings on instruments, gauges and data recording equipment</li> <li>Interpret system and product data</li> <li>Record detailed numerical data for system and product test results</li> <li>Use measuring equipment to measure and inform calculations</li> </ul> |

## Unit Mapping Information

| Code and title current version                                    | Code and title previous version                                   | Comments                                                                                                                                       | Equivalence status |
|-------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| PPMRES401<br>Troubleshoot and rectify primary resource operations | PPMRES340<br>Troubleshoot and rectify primary resource operations | Changes to elements, performance criteria, foundation skills, performance evidence and knowledge evidence<br><br>Assessment conditions updated | Not equivalent     |

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93>

# Assessment Requirements for PPMRES401 Troubleshoot and rectify primary resource operations

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## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has carried out troubleshooting and rectification activities for primary resource operations on at least two occasions according to operational requirements, including for each occasion:

- selected and used appropriate troubleshooting and testing methods to identify system and product quality faults
- diagnosed causes and sources of faults on system and associated processes
- identified and taken timely corrective action to rectify and maximise safety, quality and productivity
- communicated effectively and worked safely with others when undertaking troubleshooting and rectification activities
- completed accurate detailed records for system and product faults, diagnostic and corrective action processes on completion of fault rectification activity.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace and legislative health and safety requirements and risk measures relevant to operating, troubleshooting and rectifying primary resource operations, including emergency procedures, handling chemical and hazardous substances, high risk load shifting, licensing requirements, plant clearance and permit systems
- environmental requirements relevant to primary resource operations, including disposal procedures
- troubleshooting methods that can be applied across system and quality faults for primary resource operations in the pulp and paper industry
- purpose, standards and procedures used for troubleshooting primary resource operations, including routine physical inspections and sampling and testing for quality checks

- manufacturer specifications and operating procedures for primary resources plant and equipment, including shutdown and isolation procedures
- processes and associated services of primary resource operations, 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
- use of materials and supplies, including hardwood or softwood logs, lapped pulp, waste paper, woodchips and parts in primary resource operations
- use and purpose of testing equipment, including drying ovens, sizing screens and computer processing equipment
- appropriate and safe use of attachments, including forklift attachments, crane hooks, chains, slings and straps, grabs and winches
- purpose, standards and procedures as per site agreement, of sampling and testing process for plant and system operations, and process monitoring
- types, causes and effects of plant shutdowns on primary resource operations
- key features of maintenance systems, including operator level maintenance as per site agreements, operator maintenance schedules, maintenance suppliers and proactive maintenance strategies.

## Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a pulp and/or paper manufacturing facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - tools, equipment and materials used to troubleshoot and rectify primary resources operations
  - electronic control systems that include digital control system, touch screens or robotics required to operate the woodchip production system
  - personal protective equipment required for troubleshooting wood production systems
  - proforma or recording system for recording diagnostic and corrective action processes
- specifications:
  - workplace and standard operating procedures relating to troubleshooting and rectifying wood productions systems, including health and safety, environmental, risks and hazards identification, plant isolation and quality requirements
  - manufacturer specifications and operating procedures
- relationships:

- relevant personnel for the purposes of communicating information.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## **Links**

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93>