## **Modification history**

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

PPMDEO4XX	Troubleshoot and rectify dry end systems
Application	This unit of competency describes the skills and knowledge required to identify, diagnose, rectify and report on dry end systems in the pulp and paper industry.
	This unit applies to senior operators and production specialists who troubleshoot and provide solutions to dry end system problems in a pulp and paper manufacturing facility.
	Dry end operations cover a range of systems and sub systems including drying processes, reeling operations, chemical additive system, monitoring systems, sheet treatment processes, tail feed systems, broke system, on- line coating and coated paper systems, calendering systems, vacuum systems, laser systems, slitter systems, sheet transfer systems, accumulator and cleaning showers.
	No licensing, legislative or certification requirements apply to this unit at the time of publication.
Prerequisite Unit	Nil
Unit Sector	Dry end operations (DEO)

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify and analyse causes of systems and quality faults	1.1 Prepare for rectification of dry end operations according to productivity requirements and workplace health and safety and environmental procedures
	1.2 Identify safety hazards and determine risk control measures with relevant personnel
	1.3 Interpret alarm systems and make observations to determine faults and location
	1.4 Identify faults through routine physical inspections of plant, processes and equipment
	1.5 Conduct systemic sampling and testing and interpret results and interpret results to identify variations from operating procedures
	1.6 Access and interpret relevant sources of information and check for recent work undertaken to assist analysis
	1.7 Analyse collected information to identify cause and source of problem 1.8 Report fault and proposed corrective actions to relevant personnel
2. Rectify system and equipment faults	2.1 Shut down and isolate system according to work health and safety and operating procedures
	2.2 Repair or replace faulty equipment and undertake appropriate
	adjustments and rectification according to equipment specifications 2.3 Implement corrective operational adjustments and maintenance
	requirements according to operating procedures 2.4. Restore normal operations and communicate to relevant personnel
3. Rectify product quality	3.1 Conduct further tests for identified product faults or variations as
faults	required 3.2 Interpret test results and adjust processes to correct variations from
	specifications 3.3 Manage out-of-specification production

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
4. Record and report troubleshooting and rectification activities	<ul> <li>4.1 Document process and product faults according to workplace requirements</li> <li>4.2 Record and report diagnostic and corrective action processes to</li> </ul>
	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	Interpret information from a range of documentation
Writing	Complete accurate detailed records and reports for system and product faults, diagnostic and corrective action processes using the required format
Oral communication	<ul> <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> <li>Interpret basic 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 undertake calculations</li> </ul>

Code and title current version	Code and title previous version	Comments	Equivalence status
PPMDEO4XX Troubleshoot and rectify dry end systems	PPMDEO440 Troubleshoot and rectify dry end systems	Merged unit. Changes to elements, performance criteria, foundation skills, performance and knowledge evidence. Assessment conditions updated. Addresses coated paper processes.	Not equivalent
PPMDEO4XX Troubleshoot and rectify dry end systems	PPMCPP440 Trouble shoot and rectify coated paper processes	Merged unit. Changes to elements, performance criteria, foundation skills, performance and knowledge evidence. 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

<ul> <li>Performance Evidence         <ul> <li>An individual demonstrating competency must satisfy all of the elements and unit. There must be evidence that the individual has carried out troubleshood for dry end systems, on at least two occasions according to operational requoccasion:</li></ul></li></ul>	ting and rectification activities irements, including for each dentify system and product esses ty, quality and productivity ng troubleshooting and
<ul> <li>unit. There must be evidence that the individual has carried out troubleshood for dry end systems, on at least two occasions according to operational required occasion:</li> <li>selected and used appropriate troubleshooting and testing methods to id quality faults</li> <li>diagnosed causes and sources of faults on system and associated procession:</li> <li>identified and taken timely corrective action to rectify and maximise safe communicated effectively and worked safely with others when undertakin rectification activities</li> <li>completed accurate detailed records for system and product faults, diag processes on completion of fault rectification activity.</li> </ul> <b>Knowledge Evidence</b> An individual must be able to demonstrate the knowledge required to perform elements and performance criteria of this unit. This includes knowledge of: <ul> <li>workplace and legislative health and safety requirements and risk meass troubleshooting and rectifying dry end systems, including emergency pro and hazardous substances, high risk load shifting, licensing requirement systems <ul> <li>environmental requirements relevant to dry end systems, including disperiments, including workplace biotechnological applications and proce troubleshooting and rectification activities </li> <li>purpose, standards and procedures used for troubleshooting dry end sy physical inspections and sampling and testing for quality checks</li> <li>manufacturer specifications and operating procedures for dry end plant down and isolation procedures</li> <li>dry end plant processes and associated services to troubleshoot includia in plant layout</li> </ul></li></ul>	ting and rectification activities irements, including for each dentify system and product esses ty, quality and productivity ng troubleshooting and
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plant layout	and equipment, including shut
	ng:
<ul> <li>causes and effects of adjustments made to dry end systems</li> </ul>	
<ul> <li>relationships between dry end systems and associated services</li> </ul>	
• cause and effect of unplanned shutdown and appropriate responses	
<ul> <li>maintenance system as it applies to dry end plant and processes</li> </ul>	
<ul> <li>electronic and other control systems, operation and application to make control dry end systems.</li> </ul>	appropriate adjustments that
Assessment Conditions	
Assessment of skills in this unit of competency must take place under the fo	llowing conditions:
<ul> <li>physical conditions:</li> <li>skills must be demonstrated in a pulp or paper manufacturing facility accurately represents workplace conditions</li> </ul>	or an environment that
<ul> <li>resources, equipment and materials:</li> </ul>	systems
<ul> <li>tools, equipment and consumables used to troubleshoot and repairs</li> <li>electronic control systems which include digital control system, toucl dry end systems</li> </ul>	
<ul> <li>personal protective equipment required for inspecting, operating and systems</li> </ul>	d rectifying faulty dry end
<ul> <li>proforma or recording system for recording diagnostic and corrective</li> <li>specifications:</li> </ul>	
<ul> <li>workplace and standard operating procedures relating to troublesho operations including health and safety, environmental, risks and haz isolation and quality requirements</li> </ul>	

## **Assessment Conditions**

- 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.

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