



Australian Government

PPMWEO440 Troubleshoot and rectify wet end systems

Release: 1

PPMWEO440 Troubleshoot and rectify wet end systems

Modification History

Release	Comments
1	Replaces equivalent unit FPPWEO440A Troubleshoot and rectify wet end systems, which was first released with FPP10 Pulp and Paper Manufacturing Industry Training Package Version 1.0. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to troubleshoot and rectify wet end systems in the pulp and paper industry.

The unit applies to senior operators and production specialists who identify and rectify system and quality faults in the wet end of a pulp or paper manufacturing facility. This typically involves working in a facility with complex integrated equipment and continuous operations.

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

Pre-requisite Unit

Nil

Unit Sector

Pulp and Paper Manufacturing

Elements and Performance Criteria

Element	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.
1. Identify and analyse causes of system and quality faults	1.1. Interpret alarm mechanism and make observations to determine fault type and location according to standard operating procedures (SOPs). 1.2. Conduct routine inspections of plant and processes to identify

Element	Performance Criteria
	faults according to work health and safety (WHS) regulations and procedures, environmental and safe working requirements and practices. 1.3. Identify and deal with hazards according to safe workplace procedures. 1.4. Undertake required sampling and testing. 1.5. Interpret sampling and testing to identify variations from operating parameters. 1.6. Identify impact of fault on productivity requirements. 1.7. Access and interpret relevant sources of information to assist analysis. 1.8. Communicate information to relevant personnel.
2. Rectify systems and equipment faults	2.1. Shut down and isolate equipment prior to fault rectification according to WHS procedures, environmental and safe working requirements/practices. 2.2. By-pass faulty equipment where the process allows. 2.3. Repair or replace faulty equipment as required. 2.4. Make corrective adjustments to equipment. 2.5. Undertake operator level maintenance as required. 2.6. Verify restoration to normal operation and communicate to relevant personnel.
3. Rectify product quality faults	3.1. Identify product quality faults or variations by observation, inspection and testing. 3.2. Take samples for tests required to detect quality faults. 3.3. Interpret test results and adjust processes to correct variations from specification.
4. Record process performance and product quality data	4.1. Document variations from specifications. 4.2. Document performance variations. 4.3. Record corrective actions and communicate to personnel. 4.4. Dispose of out-of-specification product.

Foundation Skills

This section describes those core and employment skills that are essential to performance and

are not explicit in the performance criteria	
Learning skills to:	- plan actions for shift - select and use appropriate troubleshooting methods for fault rectification.
Numeracy skills to:	- interpret instruments, gauges and data recording equipment - use measuring equipment - undertake calculations to aid troubleshooting.
Communication skills to:	interpret non-verbal signals including hand signals and alarms.
Oral communication skills to:	- communicate with personnel to assist with analysis and resolution of operational problems - communicate restoration to normal operation.
Teamwork skills to:	assist others to identify and resolve operational problems in the workplace.
Reading skills to:	- identify, access and interpret relevant historical and operational data and information - access and navigate computer-based information - access and interpret plant systems and operation documentation to assist analysis of faults.
Writing skills to:	- record process performance and product quality data - document shift information using log books, emails, incident reports and run sheets - document variations from specifications, performance variations, and corrective actions.
Problem solving skills to:	maintain situational awareness in the workplace.

Range of Conditions

Not Applicable

Unit Mapping Information

FPPWEO440A Troubleshoot and rectify wet end systems

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingPackages.aspx/Pages/Home.aspx>

Assessment Requirements for PPMWEO440 Troubleshoot and rectify wet end systems

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1	Replaces equivalent unit FPPWEO440A Troubleshoot and rectify wet end systems, which was first released with FPP10 Pulp and Paper Manufacturing Industry Training Package Version 1.0. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must be able to provide evidence of the ability to:

- demonstrate troubleshooting of systems and functions in wet end operations, at least twice in line with required enterprise intervals, for at least one of the following:
 - stock approach systems
 - forming system
 - pressing systems
 - cleaning and screening system
- identify causes and effects of faults and corrective action on associated processes
- select and use appropriate troubleshooting methods
- take timely corrective action to maximise safety, quality and productivity
- undertake calculations to aid troubleshooting
- take samples, conduct tests, interpret and record results
- use electronic and other control systems to control equipment and processes.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- wet end plant, processes and associated services sufficient to troubleshoot including:
 - plant layout
 - theory of operation
 - causes and effects of adjustments made to wet end plant and processes
- relationships between wet end plant, processes and associated services
- troubleshooting methods that can be applied across system and problem faults in wet end systems
- sampling and testing process for plant and system operations, and process monitoring – purpose, standards and procedures as per site agreements use and handling requirements of chemicals used; their purpose, effects, Material Safety Data Sheets (MSDS) and Standard Operating Procedures (SOP)
- causes and effects of unplanned shutdown and appropriate responses
- mill maintenance system as it applies to wet end plant and processes
- electronic and other control systems, operation and application to make appropriate adjustments that control wet end operations.

Assessment Conditions

The following resources must be made available:

- access to the full range of equipment involved in detecting system and problem faults of wet end operations in a pulp or paper manufacturing facility
- sample workplace documentation, procedures and reports including (SOP), quality procedures, environmental sustainability requirements/practices, plant manufacturing operating manuals and enterprise policies and procedures.
- fully automated, semi-automated, manually operated plant and equipment appropriate to the wet end process and related consumables
- personal protective equipment required for wet end operations
- relevant personnel for the purposes of communicating information
- test and diagnostic equipment including consistency and flow meters.

Competency is to be assessed in the workplace or in a productive environment that accurately reflects performance in a workplace.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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