

**Modification history**

Release	Comments
Release 2	This version released with PPM Pulp and Paper Manufacturing Training Package Version 2.0.
Release 1	This version released with PPM Pulp and Paper Manufacturing Training Package Version 1.0.

PPMWPO440	Troubleshoot and rectify waste paper operations
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to identify, diagnose and rectify waste paper operations, in a pulp or paper manufacturing facility.</p> <p>The unit applies to senior operators and production specialists who troubleshoot and rectify waste paper operations. This typically involves working in a facility with complex integrated equipment and continuous operations.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Pulp and Paper Manufacturing (PPM)

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 or equipment faults	1.1 Check and plan work according to documentation and procedures, productivity requirements, workplace health and safety procedures, risks and hazards identification, environmental sustainability procedures and standard operating procedures (SOP) 1.2 Interpret alarms to determine fault type and location in waste paper operations or equipment 1.3 Interpret sampling and testing results to identify variations from specifications or schedule 1.4 Identify and locate causes and sources of fault 1.5 Access and interpret relevant sources of information to assist analysis 1.6 Select, fit, use and maintain personal protective equipment according to job requirements and task to be undertaken
2. Rectify plant faults	2.1 Conduct operator level on-line adjustments in accordance with work health and safety and SOP 2.2 Shutdown plant and implement isolation procedures prior to fault rectification 2.3 Isolate, by-pass, repair or replace faulty plant, according to organisational procedures 2.4 Restore to normal operations and communicate verification to relevant personnel
3. Rectify product faults	3.1 Identify product faults or variations by observation, systematic sampling and testing 3.2 Interpret test results and adjust operations to correct faults 3.3 Rectify faults and causes or make recommendations for further action 3.4 Manage out-of-specification production
4. Record and report system performance and product quality data	4.1 Document process variations and faults 4.2 Record stock production and machine operation faults 4.3 Record actions undertaken to troubleshoot and rectify faults 4.4 Communicate relevant information to appropriate personnel

<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Read and interpret equipment specifications, work place documentation, and procedures</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record and report test results and rectifications accurately and legibly, using correct technical vocabulary</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use appropriate spoken communication strategies with work colleagues and other personnel on site, when troubleshooting and rectifying waste paper operations</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret instruments, gauges and data recording equipment</li> <li>Use measuring equipment and undertake calculations to aid troubleshooting</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Access, navigate and enter computer-based information</li> <li>Use electronic and other control systems to control equipment and processes efficiently</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain situational awareness in the work area</li> <li>Analyse and use sensory information to adjust process and to maintain and co-ordinate safety, quality and output</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
PPMWPO440 Troubleshoot and rectify waste paper operations Release 2	PPMWPO440 Troubleshoot and rectify waste paper operations Release 1	Performance criteria added, minor changes to knowledge evidence	Equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93</a>
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<b>TITLE</b>	<b>Assessment requirements for PPMWPO440 Troubleshoot and rectify waste paper operations</b>
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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 waste paper operations, at least twice in line with required enterprise intervals, and undertake corrective action on equipment and product faults
- planned and safely diagnosed causes and sources of process variation, plant, equipment and product faults
- taken timely corrective action to maximise safety, quality and productivity
- used safety accessories including protective and high visibility, safety clothing and electronic communication equipment when working with waste paper operations
- communicated effectively, through written and verbal means, the corrective actions undertaken.

**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:

- organisational procedures relevant to workplace health and safety with particular emphasis on:
  - use of personal protective equipment (PPE)
  - equipment lock out and isolation procedures
  - handling chemicals and hazardous substances, including spill and disposal guidelines
  - plant clearance requirements
  - emergency procedures and responses
  - job safety analysis documentation and processes
  - plant permit systems and processes
  - high risk load shifting licensing requirements where relevant
  - major hazard facility requirements where relevant
- waste paper operations including pulping, screening, de-watering and reject systems
- troubleshooting methods applicable to waste paper operations
- relevant documentation and procedures to troubleshoot waste paper operations in the pulp and paper industry, including:
  - standard operating procedures (SOP)
  - productivity requirements and quality procedures
  - environmental sustainability requirements and practices
  - plant manufacturing operating manuals and plant isolation documentation
  - enterprise policies and procedures and guidelines
  - safety data sheets
  - furnish and tally sheets and process and instrument diagrams
  - process and instrument diagrams
- processes and associated services of waste paper operations, sufficient to troubleshoot, including:
  - plant layout
  - principles of process and equipment operation
  - causes and effects of adjustments made to waste paper handling plant and processes
  - relationships between waste paper handling system, processes and associated services
- the use of materials and supplies including waste paper, air, chemicals, broke, steam, water and electricity, in waste paper operations
- the purpose, standards and procedures as per site agreement, of sampling and testing process for plant and system operations, and process monitoring
- the purpose and operation of reject and water systems in waste paper operations
- the impact of process variables on production and quality and making process adjustments
- key features of maintenance systems including operator level maintenance as per site agreements, operator maintenance schedules, maintenance suppliers and pro-active maintenance strategies how to operate load shifting equipment
- use of electronic and other control systems, that control waste paper operations, to make appropriate adjustments

<b>Knowledge Evidence</b>
<ul style="list-style-type: none"> <li>productivity requirements including energy efficiency, waste minimization, evaporation minimisation, landfill and waste water reduction, consideration of resource utilisation, fibre efficiency, minimising delays, chemical recovery maximisation, line speed, handovers and quality checks.</li> </ul>

<b>Assessment Conditions</b>
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>physical conditions:             <ul style="list-style-type: none"> <li>a workplace or a productive environment that accurately reflects performance in a workplace</li> </ul> </li> <li>resources, equipment and materials:             <ul style="list-style-type: none"> <li>access to the full range of equipment involved in integrated continuous manufacturing of waste paper operations in a pulp or paper manufacturing facility</li> <li>maintenance tools and equipment and consumables for waste paper operations</li> <li>PPE suitable for inspecting and rectifying faulty waste paper equipment and product</li> </ul> </li> <li>specifications:             <ul style="list-style-type: none"> <li>template documents for recording system and product faults, diagnostic and corrective action processes operating procedures for inspecting and rectifying faulty waste paper equipment and product</li> <li>sample workplace documentation, procedures and reports including SOP, quality procedures, environmental sustainability requirements/practices, plant manufacturing operating manuals, enterprise policies and procedures, oil or chemical spills and disposal guidelines, plant isolation documentation, safe work documentation</li> <li>organisational workplace health and safety and standard procedures for waste paper operations in a pulp or paper mill.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

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