

**Modification history**

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

PPMPUL2XX	Monitor and control pulping operations
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to monitor and maintain pulping processes, ensure product quality and record and report production data.</p> <p>The unit applies to production support operators who under supervision, assist in the pulping operations of a pulp or paper manufacturing facility, undertaking routine work in monitoring, identifying and solving predictable problems that occur with 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>	Pulping operations (PUL)

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. Prepare to monitor pulping operations	1.1 Check production requirements at start of shift and plan work activities according to work health safety and standard operating procedures 1.2 Identify health and safety hazards and report safety concerns 1.3 Select and fit personal protective equipment according to task and safety requirements 1.4 Check tools and equipment are operational, and supplies are available
2. Monitor and maintain process	2.1 Confirm operational parameters by inspection and observation 2.2 Maintain process supplies and supply systems to meet production requirements 2.3 Monitor process to ensure pulping system operations are within specification. 2.4 Identify, rectify or report routine variations from specification 2.5 Monitor and maintain process levels to maintain productivity requirements 2.6 Monitor discharges according to environmental protection requirements
3. Control product quality	3.1 Monitor and maintain pulp to quality requirements 3.2 Conduct routine visual observations and assessments on pulp and system operations 3.3 Sample and test pulp quality to ensure production requirements are maintained and interpret and record results 3.4 Adjust system operation to rectify out-of-specification pulp and maintain productivity requirements 3.5 Monitor and control product storage levels
4. Monitor and maintain plant	4.1 Inspect plant, interpret variations and adjust to maintain production and quality schedules 4.2 Calibrate and maintain test equipment 4.3 Complete routine preventative maintenance according to maintenance schedules
5. Record and report product and process data	5.1 Interpret production data and enter into recording system 5.2 Communicate problems or variations with process, product or equipment to relevant personnel 5.3 Record and report problems with environmental releases

<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>Interpret information in workplace procedures and maintenance schedules</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete accurate basic records in the required format</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Provide information about problems or variations with process, products and equipment using clear language and industry terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret basic numerical settings on instruments, gauges and data recording equipment</li> <li>Record basic numerical data for test results and production outcomes</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>
PPMPUL2XX Monitor and control pulping operations	PPMPUL210 Monitor and control pulping operations Release 1	Element added. Changes to performance criteria, foundation skills, performance and knowledge evidence. Assessment conditions updated.	Equivalent

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

<b>TITLE</b>	<b>Assessment requirements for PPMPUL210 Monitor and control pulping operations</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has monitored and controlled pulping operations for at least two operational intervals, including for each interval:</p> <ul style="list-style-type: none"> <li>• completed checks throughout the process and responded appropriately to variations from process and product specifications</li> <li>• completed routine maintenance on equipment</li> <li>• completed accurate records for system operation, production outcomes and equipment faults.</li> </ul>	

<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• workplace procedures relevant to work health and safety for pulping operations: <ul style="list-style-type: none"> <li>• use of personal protective equipment</li> <li>• equipment lock out and isolation procedures</li> <li>• handling chemicals and hazardous substances, including spill and disposal guidelines</li> <li>• plant clearance requirements</li> <li>• emergency procedures and responses</li> <li>• job safety analysis documentation and processes</li> </ul> </li> <li>• permits and licensing requirements for facility hazards and high risk plant and equipment relevant to pulping operations</li> <li>• workplace environmental sustainability requirements for practices for pulping operations, including biotechnological applications and processes and biomass-derived products</li> <li>• system layout for pulping plant</li> <li>• purpose, features and operation of pulping plant, operating parameters and allowable variations</li> <li>• operation and application of electronic and other control systems</li> <li>• process stages and key control points for monitoring and controlling pulping operations</li> <li>• purpose of, and processes for sampling and testing product quality, plant and system operations</li> <li>• quality requirements for different types of pulped product including: <ul style="list-style-type: none"> <li>• bleached or unbleached pulp</li> <li>• fluff pulp</li> <li>• crumbed pulp</li> <li>• baled, rolled or sheet pulp</li> <li>• slushed pulp</li> </ul> </li> <li>• methods used to monitor pulping system operations against specified system parameters</li> <li>• effect of process adjustments on product quality and productivity during monitoring and operation</li> <li>• causes and effects of process variation between upstream and downstream customers</li> <li>• calibration requirements for test equipment used to test pulp quality</li> <li>• standard operating procedures specific to pulping operations</li> <li>• procedures for communicating, recording and reporting system operation, production outcomes, equipment faults and problems with environmental release.</li> </ul>	

<b>Assessment Conditions</b>	
<p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• skills must be demonstrated in a pulp or paper manufacturing facility or an environment that accurately reflects performance in a workplace</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• power and steam, hydraulic and electrical or pneumatic pulping system</li> <li>• woodchips, pulp or chemical materials</li> <li>• maintenance tools and equipment and consumables for pulping plant</li> </ul> </li> </ul>	

<b>Assessment Conditions</b>
<ul style="list-style-type: none"><li>• testing and diagnostic equipment</li><li>• personal protective equipment for operating pulping plant</li><li>• proforma or recording system for recording system operation, production outcomes and environmental releases</li><li>• specifications:<ul style="list-style-type: none"><li>• workplace and standard operating procedures relating to pulping operations including health and safety, risks and hazards identification, plant isolation, quality, housekeeping and environmental requirements</li><li>• maintenance schedules for pulping plant.</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>

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

DRAFT