

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.

PPMPUL320	Prepare and start up pulping system operations
Application	<p>This unit of competency describes the skills and knowledge required to conduct pre-operational checks, bring pulping system operations online and stabilise system operations after startup.</p> <p>The unit applies to operators and technicians who prepare and start up pulping system operations in a pulp or paper manufacturing facility. This typically involves working in a facility with complex integrated equipment and continuous operations.</p> <p>No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	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. Determine production requirements	1.1 Identify production requirements to plan and conduct system operations and startup processes in accordance with work health and safety and standard operating procedures (SOP) 1.2 Determine grade type and flow rate for production and communicate to pulping system operators 1.3 Determine availability and coordinate process supplies and supply systems to meet production requirements 1.4 Confirm readiness of downstream facilities to receive pulping process product and by-products 1.5 Select, fit, use and maintain personal protective equipment according to job requirements and task to be undertaken
2. Inspect and prepare systems for startup	2.1 Conduct system inspections and pre-startup safety checks in line with organisational safety and SOP 2.2 Remove isolations and establish and confirm operational settings to required specification 2.3 Set delivery systems for operation 2.4 Check monitoring devices and alarm systems and confirm as operational 2.5 Detect deviations from operational specifications and rectify or report
3. Start up pulping operations	3.1 Activate and confirm pulping systems as operational 3.2 Coordinate equipment startups for production 3.3 Confirm production ready status to relevant personnel
4. Stabilise system operations	4.1 Monitor operational parameters after startup to ensure pulping system operations are within specification 4.2 Sample and test pulp to verify product meets quality specifications 4.3 Adjust system operational parameters to rectify variation from specifications 4.4 Record system startup, operational and product quality data in operating log

Foundation Skills	
<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>	
Skill	Description
Reading	<ul style="list-style-type: none"> Interpret workplace health and safety and SOP
Writing	<ul style="list-style-type: none"> Complete accurate basic records for system startup processes and quality checks
Oral communication	<ul style="list-style-type: none"> Provide clear unambiguous information about production specifications and production ready status to pulping system operators and other personnel
Numeracy	<ul style="list-style-type: none"> Interpret basic numerical settings on instruments, gauges and data recording equipment Monitor, assess and interpret system startup data Record basic numerical data for system startup and operational performance
Get the work done	<ul style="list-style-type: none"> Use and assess sensory information (sight, sound, touch, smell, vibration, temperature) to adjust system operational parameters

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
PPMPUL320 Prepare and start up pulping system operations Release 2	PPMPUL320 Prepare and start up pulping system operations Release 1	Performance criteria added, minor changes to knowledge evidence	Equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93
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TITLE	Assessment requirements for PPMPUL320 Prepare and start up pulping system operations
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has:</p> <ul style="list-style-type: none"> • identified production requirements and managed pulping system startup at least twice in line with required enterprise intervals • completed pre-startup safety checks for each of the above system startups • recorded system startup processes and operational and product quality data in the operating log. 	

Knowledge Evidence	
<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"> • organisational procedures relevant to workplace health and safety with particular emphasis on: <ul style="list-style-type: none"> • 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 licensing requirements where relevant • system layout for pulping plant • purpose, features and operation of pulping plant, operating parameters and allowable variations • operation and application of electronic and other control systems • process stages and key control points for starting up pulping systems: <ul style="list-style-type: none"> • pre-startup safety checks • process control points in preparation stage • process control points in monitoring startup stage • purpose of, and processes for sampling and testing product quality, plant and system operations and diagnosing deviations from operational specifications • quality requirements for different types of pulped product including: <ul style="list-style-type: none"> • bleached or unbleached pulp • fluff pulp • crumbed pulp • baled, rolled or sheet pulp • slushed pulp • effect of post start-up process adjustments on product quality and productivity • causes and effects of process variation between upstream and downstream customers • standard operating procedures (SOP) specific to starting up pulping systems • communication reporting lines • recording and reporting startup processes, operational and product quality data. 	

Assessment Conditions	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • a workplace or a productive environment that accurately reflects performance in a workplace • resources, equipment and materials: <ul style="list-style-type: none"> • access to the full range of equipment involved in integrated continuous manufacturing of pulping operations in a pulp or paper mill • fully automated, semi-automated, manually operated plant and equipment appropriate to pulping systems and related consumables • pulping systems including one or more of the following - power and steam systems, hydraulic and electrical systems or pneumatic systems • PPE suitable for starting up pulping systems 	

Assessment Conditions

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| <ul style="list-style-type: none">• consumable materials including either pulp or chemicals• specifications:<ul style="list-style-type: none">• template operating log for recording startup processes, operational and product quality data• organisational workplace health and safety and SOP for starting up pulping systems |
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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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