Modification history

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| Release | Comments |
| Release 1 | This version released with PPM Training Package Version 1.0. |

| PPMPUL320 | Prepare and start up pulping system operations |
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| Application | This unit of competency describes the outcomes required to conduct pre-operational checks, bring pulping system operations online and stabilise system operations after startup.  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.  No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Pulp and Paper Manufacturing (PPM) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Determine production requirements | 1.1 Identify production requirements to plan system operations and startup processes.  1.2. Determine grade type and flow rate for production and communicate to pulping system operators.  1.3. Determine availability and co-ordinate process supplies and supply systems to meet production requirements.  1.4. Confirm readiness of downstream facilities to receive pulping process product and by products. |
| 2. Inspect and prepare systems for startup | 2.1. Conduct system inspections and pre-start up safety checks in line with organisational safety and standard operating procedures.  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. Co-ordinate 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 variations from specifications.  4.4. Record system startup, operational and product quality data in operating log. |

| 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. | |
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| Skill | Description |
| Numeracy skills to: | * 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. |
| Oral communication skills to: | * provide clear unambiguous information about production specifications and production ready status to pulping system operators and other personnel. |
| Reading skills to: | * interpret workplace health and safety and standard operating procedures. |
| Writing skills to: | * complete accurate basic records for system startup processes and quality checks. |
| Problem solving skills to: | * use and assess sensory information (sight, sound, touch, smell, vibration, temperature) to adjust system operational parameters. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMPUL320 Prepare and start up pulping system operations | FPPPUL320A Prepare and start up pulping system operations |  | Equivalent unit |

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

| TITLE | Assessment requirements for PPMPUL320 Prepare and start up pulping system operations |
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| Performance Evidence | |
| A person demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit, and must be able to provide evidence that they can:   * identify production requirements and manage pulping system startup within a pulp or paper manufacturing facility, at least twice in line with required enterprise intervals * for each of the above system startups, complete pre-startup safety checks * record system startup processes and operational and product quality data in the operating log. | |

| Knowledge Evidence |
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| A person competent in this unit must be able to demonstrate 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 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: * 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: * 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 specific to starting up pulping systems * communication reporting lines * recording and reporting startup processes, operational and product quality data |

| Assessment Conditions |
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| The following resources must be made available:   * 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 include one or more of the following: * power and steam systems * hydraulic and electrical systems * pneumatic systems * consumable materials include one or more of the following: * personal protective equipment suitable for starting up pulping systems * details of production requirements to plan system woodchips * pulp * chemicals * operations * template operating log for recording startup processes, operational and product quality data * organisational workplace health and safety and standard operating procedures for starting up pulping systems * relevant personnel for the purposes of communicating information   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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