Modification history

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

| PPMREC320 | Prepare and start up chemical recovery operations |
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| Application | This unit of competency describes the outcomes required to prepare and start up chemical recovery operations in a pulp or paper manufacturing facility. This work typically involves complex integrated equipment and continuous operations.  The unit applies to production operators and technicians who establish the production and quality processes after preparing and starting up chemical recovery systems. This typically involves working in a facility with complex integrated equipment and continuous operations.  Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication and may differ according to jurisdiction. |
| 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 for chemical recovery | 1.1. Determine processing rates for production and communicate to relevant personnel  1.2. Determine availability of incoming supplies to meet production requirements  1.3. Confirm readiness and availability of facilities to receive process product and/or by-products |
| 2. Inspect and prepare systems for startup | 2.1. Complete pre-startup checks in line with work health and safety (WHS) regulations, environmental and safe working requirements/practices.  2.2. Identify and deal with hazards according to safe workplace procedures  2.3. Confirm operational settings against specification requirements  2.4. Set delivery systems for operation according to standard operating procedures (SOPs)  2.5. Check monitoring devices and systems and confirm as operational  2.6. Rectify faults that have been identified  2.7. Confirm production ready status with relevant personnel |
| 3. Start up operations | 3.1. Activate systems and confirm as operational  3.2. Co-ordinate equipment startups for production  3.3. Communicate process operation to relevant personnel  3.4. Record production startup details as required |
| 4. Establish and stabilise the production and quality processes | 4.1. Monitor and adjust chemical recovery systems to rectify variations from specifications  4.2. Take samples as required and action appropriately  4.3. Verify product tests as within specification where applicable  4.4. Record system operation, production and quality data as required |

| 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 |
| Learning skills to: | * plan activities at start of shift * determine chemical recovery requirements for operation (temperatures, oxidation, combustion and evaporation rates). |
| Numeracy skills to: | * interpret and verify test results * interpret instruments, gauges and data recording equipment. |
| Communication skills to: | * interpret non-verbal instructions including hand signals, signage and alarms. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMREC320 Prepare and start up chemical recovery operations | FPPREC320A Prepare and start up chemical recovery operations | Replaces equivalent unit FPPREC320A Prepare and start up chemical recovery operations, 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. | 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 [Unit code and title in sentence case] |
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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:   * prepare and start up chemical recovery processes, at least twice in line with required enterprise intervals, which requires the ability to: * conduct checks to ensure availability of incoming supplies * remove isolations to activate startup * conduct pre-startup checks of plant and equipment including instrumentation * conduct checks to ensure readiness and availability of facilities to receive process product and/or by-products * determine chemical recovery requirements (temperatures, oxidation, combustion and evaporation rates) for operation * input operational settings (set points) in preparation for startup in accordance with Standard Operating Procedures (SOPs) * activate and confirm operation of chemical recovery system according to SOP * make process control adjustments to stabilise production and quality * take samples of product, conduct tests, interpret and record results to regulate product consistency and quality * during the startup process, demonstrate safe use for different types of chemicals * use electronic and other control systems to control equipment and processes. | |

| 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 * relationships within the chemical recovery area members and with the area's suppliers and customers * cause and effects of operational equipment faults * working knowledge of chemical recovery operations, processes, layout and associated services sufficient to carry out startup activities * control points of the preparation for startup procedure * control points of the startup procedure * purpose of the process controls and how the changes affect the operation's variables * purpose of each of the steps in the preparation of the chemical recovery system for production * sampling and testing process for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements |

| Assessment Conditions |
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| The following resources must be made available:   * access to the full range of chemicals and equipment required to start up chemical recovery operations in a pulp or paper manufacturing facility * personal protective equipment required for operating chemical recovery systems * pumps and transfer equipment * mechanical, hydraulic and electrical systems * process monitoring and management equipment * 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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