Modification history

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

| PPMSPR440 | Troubleshoot and rectify stock preparation systems |
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| Application | This unit of competency describes the outcomes required to identify and analyse causes of system, equipment and product faults and to rectify and report on problems in the stock preparation area of a pulp or paper manufacturing facility.  The unit applies to senior operators and production specialists who troubleshoot and rectify stock preparation systems. This typically involves working in a facility with complex integrated equipment and continuous operations.  No licensing, legislative 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. Identify and analyse causes of system faults | 1.1. Complete routine visual or physical walk around inspections of plant to identify system faults in line with organisational safety and standard operating procedures.  1.2. Interpret alarm system alerts and observations to diagnose fault type.  1.3. Access plant operating logs to assist diagnosis.  1.4. Sample and test stock for variations from quality specifications; interpret and record results.  1.5. Analyse all information collected to identify fault type and location.  1.6. Report fault and communicate proposed actions to rectify. |
| 2. Rectify system and equipment faults. | 2.1. Follow organisational safety and standard operating procedures to shut down and isolate equipment prior to fault rectification.  2.2. By-pass faulty equipment where the process allows.  2.3. Repair or replace faulty equipment and make corrective system adjustments.  2.4. Complete routine preventative maintenance as required.  2.5. Restore system operations and advise relevant personal of return to normal operation. |
| 3. Rectify product quality faults. | 3.1. Identify variations in specified quality of stock, chemicals and water through routine visual observations.  3.2. Sample and test stock for variations from quality specifications; interpret and record results.  3.3. Adjust processes to rectify out-of-specification product. |
| 4. Record and report faults and rectification process | 4.1. Document system and product faults.  4.2. Record and report diagnostic and corrective action processes to relevant personnel |

| 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 * assess and interpret system and product data * record detailed numerical data for system and product test results. |
| Oral communication skills to: | * provide clear comprehensive information about problems with equipment and products * provide clear unambiguous information about return to normal operations to system operators and other personnel. |
| Reading skills to: | * interpret: * workplace health and safety and standard operating procedures * equipment operating logs. |
| Writing skills to: | * complete accurate detailed records for system and product faults, diagnostic and corrective action processes. |
| Problem solving skills to: | * use and assess sensory information (sight, sound, touch, smell, vibration, temperature) to respond to system and product faults. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMSPR440 Troubleshoot and rectify stock preparation systems | FPPSPR440A Troubleshoot and rectify stock preparation systems |  | 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 PPMSPR440 Troubleshoot and rectify stock preparation systems |
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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 and rectify faults in plant, equipment and product quality and system performance, at least twice in line with required enterprise intervals, relevant to stock preparation systems * select and use appropriate trouble shooting methods in stock preparation systems * use electronic and other control systems, including portable control devices, touch screens or robotics to control equipment and processes as required during troubleshooting * communicate effectively and working safely with others, in the work area when rectifying stock preparation systems * identify, analyse causes and rectify system and equipment faults for stock preparation system types including: * refining system * blending system * proportioning system * broke system * cleaning system * water recovery system * chemical and additive plants * sample and test stock for variations from quality specifications * on the completion of fault rectification jobs, complete accurate detailed records for system and product faults, diagnostic and corrective action 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 requirements where relevant * system layout for stock preparation systems * purpose, features and operation of stock preparation system plant, operating parameters and allowable variations * operation and application of electronic and other control systems * relationships between all components of stock preparation plant, processes and associated services * troubleshooting methods that can be applied across system and problem faults in stock preparation systems including: * equipment faults * deviations from operational specifications for equipment * deviations from quality specifications for stock * stock preparation processes and equipment required to: * shut down equipment * restore system operation * purpose of, and processes for sampling and testing stock quality, plant and system operations * quality requirements for different types of stock * effect of process adjustments on stock quality and productivity * organisational procedures: * standard operating procedures specific to inspecting and rectifying faulty stock preparation equipment and product * communication reporting lines * recording and reporting system and product faults, diagnostic and corrective action processes |

| 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 stock preparation systems in a pulp or paper manufacturing facility * organisational workplace health and safety and standards for stock preparation systems in a pulp or paper mill * testing equipment for stock * maintenance tools and equipment and consumables for stock preparation equipment * personal protective equipment suitable for inspecting and rectifying faulty stock preparation equipment and product * relevant personnel for the purposes of communicating information * template documents for recording system and product faults, diagnostic and corrective action processes operating procedures for inspecting and rectifying faulty stock preparation equipment and product.   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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