Modification history

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

| PPMPUL440 | Troubleshoot and rectify pulping processes |
| --- | --- |
| Application | This unit of competency describes the outcomes required to troubleshoot, rectify and report on pulping processes in the pulp and paper industry.  The unit applies to operators, technicians and senior technicians who troubleshoot and rectify pulping processes, 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 |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Identify and analyse causes of faults | 1.1. Identify faults in pulping processes in accordance with productivity requirements, relevant workplace health and safety (WHS) procedures, risks and hazards identification and environmental workplace procedures.  1.2. Interpret alarm systems and observations to determine faults and location.  1.3. Identify faults through routine physical inspections of plant, processes and equipment.  1.4. Interpret sampling and results to identify variations from specifications or schedule.  1.5. Use appropriate techniques to identify and locate cause and source of the problem.  1.6. Access and analyse relevant data, as required to assist analysis. |
| 2. Rectify plant faults | 2.1. Conduct operator level on-line adjustments.  2.2. Implement isolation procedures and plant shut down prior to faul rectification.  2.3. Isolate, by-pass, repair or replace faulty plant, as required.  2.4. Return plant to normal operation.  2.5. Communicate verification to relevant personnel. |
| 3. Rectify product quality faults | 3.1. Identify by observation, systematic sampling and testing, product quality faults or variations.  3.2. Interpret test results and adjust operations to correct faults.  3.3. Rectify faults and causes or make recommendations for further action.  3.4. Manage out-of-specification product. |
| 4. Record and report process performance and product quality data | 4.1. Identify recording and reporting workplace requirements for process performance and product quality data.  4.2. Document variations from product specification.  4.3. Record process variation and faults.  4.4. Record actions undertaken to troubleshoot and rectify faults.  4.5. Communicate relevant information to appropriate 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. | |
| --- | --- |
| Skill | Description |
| Numeracy skills to: | * interpret instruments, gauges and data recording equipment * use measuring equipment, as required. |
| Oral communication skills to: | * select and use appropriate spoken communication strategies with work colleagues and other personnel on site. |
| Reading skills to: | * read and interpret specifications, procedure manuals and test results. |
| Writing skills to: | * record and report test results and rectifications accurately and legibly using correct technical vocabulary * access, navigate and enter computer based information. |
| Problem solving skills to: | * maintain situational awareness in the work area * analyse and use sensory information to adjust process to maintain and co-ordinate safety, quality and productivity. |
| Technology skills to: | * use electronic and other control systems to control equipment and processes and make appropriate adjustments for troubleshooting processes |

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMPUL440 Troubleshoot and rectify pulping processes | FPPPUL440A Troubleshoot and rectify pulping processes |  | 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 |

| TITLE | Assessment requirements for PPMPUL440 Troubleshoot and rectify pulping processes |
| --- | --- |
| 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, at least twice in line with required enterprise intervals, relevant to pulping processes * follow safe working practices when troubleshooting, in a pulp or paper mill * select and use appropriate troubleshooting skills in pulping processes * use and interpret electronic control systems, including Digital Control System (DCS), touch screens or robotics to control equipment and processes as required during troubleshooting * communicate effectively by verbal and written means and work safely with others, in the work area when rectifying pulping processes | |

| Knowledge Evidence |
| --- |
| 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 * pulping plant, processes and associated services sufficient to troubleshoot including plant layout, operating principles and causes and effects of adjustments made to pulping plant and processes * maintenance system as it applies to pulping operations * troubleshooting methods that can be applied across system and problem faults in pulping operations * causes and effects of unplanned shutdown and appropriate responses * operating overhead cranes * electronic and other control systems, operation and application to make appropriate adjustments that control pulping operations |

| Assessment Conditions |
| --- |
| The following resources must be made available:   * access to the full range of tools, equipment and resources require to identify and rectify faults in pulping operations in a pulp or paper manufacturing facility * electronic control systems which including portable, touch screens or robotics * personal protective equipment required for troubleshooting and operating pulping processes and systems * sample workplace documentation on work health and safety (WHS) procedures, risks and hazards identification procedures, environmental and safe working requirements/practices, SOP and housekeeping requirements * 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. |

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