Modification history

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

| PPMCPP440 | Troubleshoot and rectify coated paper processes |
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| Application | This unit of competency describes the outcomes required to diagnose, rectify and report on plant, equipment or product quality faults in coated paper processes.  This unit applies to senior operators and production specialists who troubleshoot and rectify coated paper processes in a pulp or paper manufacturing facility. This work typically involves complex integrated equipment and continuous operations. Coated paper processes describe a range of systems and sub systems including tail feed systems, chemical and material batching, laminating and coating, splicing, clay plant operation, calendaring, pre-reeler operations, super calendaring, rewindering, drying systems, internal unloading and combine rollers.  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 diagnose causes of process variation, plant or equipment faults | 1.1. Identify and diagnose plant or equipment faults in coated paper processes in accordance with production requirements, relevant workplace health and safety (WHS) procedures, risks and hazards identification and environmental workplace procedures.  1.2. Interpret visual assessments and machine alarm systems to determine fault type and location.  1.3. Identify faults through routine physical inspections of plant, processes and equipment.  1.4. Use appropriate techniques to identify and locate cause and source of process variation, plant or equipment faults.  1.5. Access and analyse relevant historical data, as required to confirm diagnosis.  1.6. Communicate problems to relevant personnel. |
| 2. Rectify process variation, plant and equipment faults | 2.1. Initiate, prior to fault rectification, emergency stop or shutdown, isolation and lockout procedures.  2.2. Isolate, repair or replace faulty equipment or instrumentation and undertake appropriate adjustments and rectification.  2.3. Implement corrective operational adjustments and maintenance requirements.  2.4. Restore normal operations and communicate to relevant personnel. |
| 3. Identify and rectify product quality faults | 3.1. Identify by observation, systematic sampling and testing product faults or variations.  3.2. Manage out of specification product.  3.3. Undertake sampling for tests to identify product faults or variations.  3.4. Conduct required tests.  3.5. Interpret test results and adjust to correct variations. |
| 4. Record and report troubleshooting activities | 4.1. Identify recording and reporting workplace requirements for troubleshooting.  4.2. Document variations from specification and machine operation faults.  4.3. Record assessment and evaluation of causes of deviation, and corrective action undertaken, as required.  4.4. Communicate relevant information to 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 instruments, gauges and data recording equipment * use measuring equipment and undertake calculations to aid testing and troubleshooting. |
| Oral communication skills to: | * use appropriate spoken communication strategies with work colleagues and other personnel, on site to assist with analysis and resolution of operational problems and to manage troubleshooting and maintenance. |
| Reading skills to: | * read and interpret procedure manuals and test results. |
| Writing skills to: | * record and report test results and rectifications accurately and legibly using correct technical vocabulary. |
| 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 coated paper processes. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMCPP440 Troubleshoot and rectify coated paper processes | PPMCPP440A Troubleshoot and rectify coated paper processes |  | 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 PPMCPP440 Troubleshoot and rectify coated paper processes |
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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 troubleshoot and rectify coated paper processes, at least twice in line with required enterprise intervals, by:   * selecting and using appropriate skills in trouble shooting in coated paper processes * identifying, diagnosing and rectifying faults in plant, equipment and product quality relevant to coated paper processes * undertaking sampling and testing on products and interpret test results * using and interpreting electronic control systems, including Digital Control System (DCS), touch screens or robotics to control equipment and processes * reading and interpreting documentation, procedures and reports relevant to coated paper processes * communicating with stakeholders about troubleshooting, including internal and external customers and suppliers, team members, production/service co-ordinators, maintenance services, operator support personnel, operational management and statutory authorities * communicating effectively and working safely with others, in the work area when troubleshooting and rectifying coated paper 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 * documentation and procedures relevant to troubleshooting and rectifying coated paper processes in the pulp and paper industry including: * Standard Operating Procedures (SOP) * production needs including output targets, production scheduling quality requirements, resources and energy use, waste minimisation * quality procedures * environmental sustainability requirements/practices * machinery and plant manufacturing operating manuals * enterprise policies and procedures * Material Safety Data Sheets (MSDS) * plant isolation documentation * safe work documentation * maintenance logs * job sheets * site agreements * safety instructions * process and instrument diagrams * machine manuals * troubleshooting guides * incident reports * coated paper processes and associated services sufficient to troubleshoot including: * plant layout * operating principles * causes and effects of adjustments made to coated paper plant and processes * relationships between coated paper processes and associated services * troubleshooting methods applicable to the operation of coated paper processes * sampling and testing for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements * cause and effect of test results and actions relevant to troubleshooting * product grade and process adjustment procedures for coated paper * electronic and other control systems, operation and application to make appropriate adjustments that control coated paper processes |

| Assessment Conditions |
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| The following resources must be made available:   * access to the full range of tools and equipment involved in troubleshooting and rectifying integrated continuous manufacturing of coated paper processes in a pulp or paper manufacturing facility * electronic control systems which includes Digital Control System (DCS), touch screens or robotics * personal protective equipment required for operating coated paper processes * relevant personnel for the purposes of communicating information * 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.   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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