Modification history

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

| PPMDEO440 | Troubleshoot and rectify dry end systems |
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| Application | This unit of competency describes the outcomes required to analyse, rectify and report on dry end systems in the pulp and paper industry.  This unit applies to senior operators and production specialists who troubleshoot and rectify dry end systems in a pulp and paper manufacturing facility. Dry end operations describe a range of systems and sub systems including drying processes, reeling operations, chemical additive system, monitoring systems, sheet treatment processes, tail feed systems, broke system, on-line coating systems, calendering systems, vacuum systems, laser systems, slitter systems, sheet transfer systems, accumulator, cleaning showers.  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. Identify and analyse causes of systems and quality faults | 1.1. Identify and analyse system or quality faults in dry end operations in accordance with production 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 operating procedures  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.  1.7. Communicate information to relevant personnel. |
| 2. Rectify system and equipment faults | 2.1. Initiate, prior to fault rectification, emergency stop or shutdown, and isolation procedures.  2.2. Isolate, repair or replace faulty equipment 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. Rectify product quality faults | 3.1. Identify by observation, inspection and testing, product quality faults or variations.  3.2. Undertake sampling and conduct tests for product faults or variations.  3.3. Interpret test results and adjust processes to correct variations from specifications. |
| 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 specification and performance.  4.3. Deal with out of specification product according to standard operating procedures (SOP).  4.3. Record corrective action undertaken, 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 |
| Numeracy skills to: | * interpret instruments, gauges and data recording equipment. |
| 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 production. |
| Technology skills to: | * use electronic and other control systems to control equipment and processes and make appropriate adjustments for troubleshooting processes |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMDEO440 Troubleshoot and rectify dry end systems | PPMDEO440A Troubleshoot and rectify dry end 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 PPMDEO440 Troubleshoot and rectify dry end 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:   * analyse and rectify dry end systems at least twice in line with required enterprise intervals, in the pulp and paper industry by: * selecting and using appropriate trouble shooting skills in dry end processes * identifying and rectifying faults in plant, equipment and product quality, relevant to dry end processes * using and interpreting electronic control systems, including Digital Control System (DCS), touch screens or robotics to control equipment and processes as required during processing * communicating effectively and working safely with others, in the work area when rectifying dry end systems. | |

| 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 workplace procedures relevant to troubleshooting and rectifying dry end systems in the pulp and paper industry and 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 and safe work documentation which includes Standard Operating Procedures (SOP), risks and hazard identification and housekeeping * maintenance logs, job sheets and production instructions * dry end plant processes and associated services sufficient to troubleshoot including: * plant layout * principles of operation * causes and effects of adjustments made to dry end systems * relationships between dry end systems and associated services * troubleshooting methods applicable to the operation of dry end systems * sampling and testing for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements * cause and effect of unplanned shutdown and appropriate responses * mill maintenance system as it applies to dry end plant and processes * electronic and other control systems, operation and application to make appropriate adjustments that control dry end systems |

| Assessment Conditions |
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| The following resources must be made available:   * access to the full range of tools and equipment involved in integrated continuous manufacturing of dry end operations in a pulp or paper manufacturing facility * electronic control systems including Digital Control System (DCS), touch screens or robotics * materials used in dry end processes including chemicals, compressed air, water, electricity, gas, steam, additives, machine clothing and ropes and belts * personal protective equipment required for trouble shooting and rectifying dry end operations * 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. |

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