Modification history

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

| PPMEPG330 | Co-ordinate power generation system shutdown |
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| Application | This unit of competency describes the outcomes required to shut down power generation systems in both planned and unplanned situations and to communicate shutdown information and data to internal and external personnel.  The unit applies to production operators and technicians who co-ordinate power generation system shutdowns, in a pulp or paper manufacturing facility. 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. Co-ordinate planned shutdown | 1.1. Use maintenance schedules to plan and co-ordinate shutdown of power generation system.  1.2. Follow procedures to shut down process supplies.  1.3. Follow organisational safety and standard operating procedures to initiate appropriate isolations and shut down systems.  1.4. Inspect system and record and report further maintenance requirements. |
| 2. Respond to unplanned shutdown | 2.1. Respond to unplanned shutdown immediately.  2.2. Initiate appropriate isolations, identify and locate cause of unplanned shutdown.  2.3. Rectify, isolate and or contain faulty plant where possible to allow continued production.  2.4. Follow procedures to shut down process supplies where fault cannot be rectified.  2.5. Assess effects of unplanned shutdown to determine impact on operations.  2.6. Communicate unplanned shutdown to appropriate personnel and power authorities, as required. |
| 3. Record and report shutdown data | 3.1. Record shutdown and corrective action processes.  3.2. Report shutdown information to relevant personnel and power authorities 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 basic numerical settings on instruments and gauges involving pressures, flows and temperatures. |
| Reading skills to: | * interpret workplace health and safety and standard operating procedures (SOP). |
| Writing skills to: | * complete accurate basic records for shutdown processes and maintenance requirements. |
| Problem solving skills to: | * use and assess sensory information (sight, sound, touch, smell, vibration, temperature) to respond to system faults. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMEPG330 Co-ordinate power generation system shutdown | FPPEPG330A Co-ordinate power generation system shutdown |  | 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 PPMEPG330 Co-ordinate power generation system shutdown |
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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:   * co-ordinate planned shutdown of a power generation system within a pulp or paper manufacturing facility, at least twice in line with required enterprise intervals, and complete the following tasks after shut down: * inspect the system for these maintenance requirements * complete routine maintenance when shutting down the power generation system * complete basic records for shutdown processes and maintenance requirements * follow safe working practices when shutting down up the power generation system * use electronic and other control systems to control equipment during operations * communicate effectively, through written and verbal means, with others, in the work area when co-ordinating the planned shutdown of a power generation system * respond to one unplanned or emergency shutdown, which can be a real time event or by scenario, implement responses appropriate to the cause and complete a basic report on 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 * local power authority regulations and reporting requirements for shutting down power generation systems * power generation plant layout * purpose, features and operation of power generation and distribution systems, operating parameters and allowable variations * operation and application of electronic and other control systems * electrical isolation procedures * principles of operation of transformers and circuit protection systems * AC/DC generation principles * electrical output control and regulation principles * power factor characteristics and effects * effect of steam quality on turbine operation * operational tolerances of the turbine system and effects of operating outside these tolerances * key features and purpose of the full range of processes involved in shutting down power generation systems * types, causes and effects of, and required emergency and other responses to, unplanned power generations system shutdowns: * power outage * mechanical breakdown * blockages * jamming * air supply * control system failure * methods used to test power systems and diagnose faults * organisational procedures: * standard operating procedures specific to power generation system shutdown * communication reporting lines * recording and reporting shutdown processes and maintenance requirements |

| 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 for power generation systems in a pulp or paper manufacturing facility, including chemical products and systems: * high and low voltage transformers * steam or gas turbine driven alternators * switchboards * water systems and auxiliary plant * circuit breakers * AC/DC generation and distribution systems * analogue and digital instrumentation * personal protective equipment suitable for shutting down power generation systems * local power authority regulations for shutting down power generation systems * maintenance schedules for power generation system * relevant personnel for the purposes of communicating information * template documents for recording shutdown processes and maintenance requirements * organisational workplace health and safety and standard operating procedures for power generation system shutdown.   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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