Modification history

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

| PPMSTM330 | Shut down and bank steam boiler |
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| Application | This unit of competency describes the outcomes required to shut down steam boilers in planned, unplanned and emergency situations and to inspect, maintain and store boilers.  The unit applies to production operators and technicians who shut down and bank steams boilers 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 |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Shut down, inspect and maintain boiler. | 1.1. Follow organisational safety and standard operating procedures to initiate appropriate isolations and shut down boiler and ancillary plant.  1.2. Prepare boiler for inspection.  1.3. Establish condition of boiler to ensure safe removal of equipment.  1.4. Inspect boiler and complete routine preventative maintenance.  1.5. Clean boiler internally and externally in line with environmental protection practices.  1.6. Record and report maintenance requirements. |
| 2. Store boiler in shutdown mode. | 2.1. Establish storage time and condition of storage.  2.2. Store boiler in safe condition for access in line with manufacturer's specifications.  2.3. Analyse stored boiler water and chemicals when boiler is stored for extended periods. |
| 3. Respond to unplanned or emergency shutdowns. | 3.1. Respond to shutdown requirement immediately.  3.2. Follow organisational safety procedures to maintain safety of personnel and plant during emergency shutdown situations.  3.3. Identify and locate cause of shutdown.  3.4. Monitor and maintain continuing plant operation in safe working mode.  3.5. Notify relevant personnel to rectify and make plant ready for restart. |
| 4. Record and report shutdown data. | 4.1. Record shutdown and corrective action processes.  4.2. Report shutdown information 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 and gauges involving pressures, flows and temperatures. |
| Reading skills to: | * interpret detailed familiar workplace health and safety and standard operating procedures. |
| 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 boiler faults. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| PPMSTM330 Shut down and bank steam boiler | FPPSTM330A Shut down and bank steam boiler |  | 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 PPMSTM330 Shut down and bank steam boiler |
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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 shutdowns of a steam boiler within a pulp and paper manufacturing facility, at least twice in line with required enterprise intervals, and complete the following tasks after shut down: * inspect the boiler and complete routine preventative maintenance * clean the boiler internally and externally * analyse stored boiler water and chemicals * complete basic records for shutdown processes and maintenance requirements * respond to unplanned or emergency shutdowns, which can be a real time event or by scenario, and 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 * boiler plant layout * purpose, features and operation of these types of boilers and associated fuel types and delivery systems: * fire tube * water tube * operation and application of electronic and other control systems * boiler water treatment system and reasons for treatment * purpose of, and processes for analysing stored boiler water and chemicals * key features and purpose of equipment required to shut down and store a steam boiler * types, causes and effects of, and required emergency and other responses to, unplanned boiler shutdowns: * power outage * mechanical breakdown * blockages * jamming * air supply * control system failure * methods used to: * test boiler operations and diagnose faults * clean boilers internally and externally * organisational procedures: * standard operating procedures specific to boiler 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:   * a boiler which can be fire or water tube type * fully automated, semi-automated, manually operated plant and equipment required for shutting down boiler operation in a pulp or paper manufacturing facility * testing equipment for boiler water and chemicals * maintenance tools and equipment and consumables for boilers * personal protective equipment suitable for maintaining and shutting down a boiler * 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 boiler 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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