



Australian Government

UEPOPS133 Shut down a boiler unit

Release: 1

UEPOPS133 Shut down a boiler unit

Modification History

Release 1. This is the first release of this unit of competency in the UEP Electricity Supply Industry – Generation Sector Training Package Release 2.0.

Application

This unit involves the skills and knowledge required to conduct the shutdown of a boiler unit to a depressurised state.

A shutdown of a boiler unit will involve a series of steps to stop production, feed and fuel flows in a safe and controlled manner.

Competency in this unit requires the ability to plan and prepare boiler unit shutdown, conduct a shutdown, test boiler unit operation during shutdown, analyse boiler unit system faults during shutdown and complete documentation post-shutdown. Individuals will, in general, work under supervision in a power generation facility as an operator.

Power generation plant operators are trained and authorised to isolate, prepare plant and issue permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

There are no prerequisite units

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1 Plan and prepare boiler unit shutdown work | 1.1 Work health and safety (WHS)/occupational health and safety (OHS) regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, environmental requirements and workplace procedures are identified, applied and monitored |
| | 1.2 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures |
| | 1.3 Preoperational checks are carried out on boiler unit plant in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 2 Conduct boiler unit shutdown | 2.1 Perform shutdown of boiler unit in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.2 Boiler unit is cooled down and purged in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.3 Boiler unit is depressurised in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.4 Corrective actions are taken to rectify boiler unit abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 3 Test boiler unit plant operation | 3.1 Tests are performed on boiler unit in accordance with workplace procedures |
| | 3.2 Power generation system and boiler unit plant is observed for operational response in accordance with workplace procedures |
| | 3.3 Boiler unit plant is returned to required operational status upon completion of testing in accordance with workplace procedures |
| 4 Analyse and report on system faults during boiler unit shutdown | 4.1 Causes of abnormal boiler unit plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| | 4.2 Boiler unit plant integrity and personnel safety is |

maintained through consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures

- 4.3** Relevant personnel are notified when defects are detected in accordance with workplace procedures

5 Complete documentation

- 5.1** Boiler unit plant problems, movements and status are reported in accordance with workplace procedures
- 5.2** Documentation is updated in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS410 Shut down a boiler unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

Assessment Requirements for UEPOPS133 Shut down a boiler unit

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel
- identifying boiler unit plant status
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting manuals
- monitoring and operating boiler unit plant and equipment
- organising resources
- performing shutdown of boiler unit
- planning shutdown boiler unit plant operation
- preparing boiler unit plant and equipment for operation
- responding to abnormal boiler unit plant operating conditions
- testing boiler unit plant operation using diagnostic data analysis techniques and tools to determine faults
- using recording procedures to complete documentation
- utilising cooling and depressurising techniques
- working with permit to work system.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and include knowledge of:

- boiler cooling and depressurising techniques
- boiler operational processes

- boiler system components and interaction
- manuals
- permit to work system
- power generation unit plant
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- shutdown procedures
- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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