



Australian Government

UEPOPS134 Shut down a gas turbine

Release: 1

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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 shut down a gas turbine unit to a standby state.

Performing shutdown procedures for a gas turbine unit will require the implementation of power generation facility procedures and provisions, including manufacturers' recommendations and specifications, and worksite specific requirements.

Competency in this unit requires the ability to plan and prepare gas turbine shutdown, shut down a gas turbine, test gas turbine plant operation, analyse power generation system faults and complete documentation. 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 gas turbine shutdown work | <ul style="list-style-type: none">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 monitored1.2 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures1.3 Operational checks are carried out on gas turbine plant in accordance with manufacturers' recommendations and specifications, and workplace procedures1.4 Team and individual roles and responsibilities are identified and recorded in the shutdown plan in accordance with workplace procedures |
| 2 Conduct gas turbine shutdown | <ul style="list-style-type: none">2.1 Gas turbine is unloaded and shutdown in accordance with manufacturers' recommendations and specifications, and workplace procedures2.2 Gas turbine exhaust gas flow and power output are adjusted when gas turbine is a component of a combined unit to achieve required steam flow conditions in accordance with workplace procedures2.3 Gas turbine and associated power generation plant is placed in a safe condition in accordance with manufacturers' recommendations and specifications, and workplace procedures2.4 Gas turbine plant is operated within limits of design during gas turbine shutdown in accordance with workplace procedures2.5 Gas turbine plant is inspected and monitored to detect abnormal operating conditions during shutdown in accordance with workplace procedures2.6 Corrective actions are taken to rectify gas turbine plant operation abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 3 Inspect and test gas turbine plant operation during shutdown | <ul style="list-style-type: none">3.1 Tests are performed on gas turbine plant in accordance with workplace procedures |

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| | 3.2 | Gas turbine system and plant is observed for operational response in accordance with workplace procedures |
| | 3.3 | Corrective action is taken when operation response is not in accordance with shutdown work plan, plant integrity and safety requirements in accordance with workplace procedures |
| | 3.4 | Gas turbine plant is returned to required operational status upon completion of testing in accordance with workplace procedures |
| 4 Analyse system faults during gas turbine shutdown | 4.1 | Causes of abnormal gas turbine plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| | 4.2 | Gas turbine plant integrity and personnel safety is maintained and 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 | Gas turbine 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 UEPOPS408 Shut down a gas turbine

Links

Companion Volume implementation guides are found in VETNet -

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