



Australian Government

UEPOPS073 Operate and monitor a steam 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 operate and monitor an in-service steam turbine.

A steam turbine extracts thermal energy from pressurised steam and is particularly suited to driving an electrical generator as the high-pressure steam is used to turn electricity generators at elevated speed.

Competency in this unit requires the ability to plan work, operate steam turbine plant, test steam turbine plant, analyse steam turbine plant faults, monitor and inspect steam turbine and complete all 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 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 steam turbine plant in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 2 Operate steam turbine plant | 2.1 Steam turbine output is adjusted to meet demand in accordance with workplace procedures |
| | 2.2 Steam turbine plant is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.3 Steam turbine plant is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures |
| | 2.4 Corrective actions are taken to rectify steam turbine plant abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 3 Test steam turbine plant operation | 3.1 Operational tests are performed in accordance with workplace procedures |
| | 3.2 Steam turbine plant is observed for correct operational response in accordance with workplace procedures |
| | 3.3 Steam turbine plant is returned to required operational status upon completion of test in accordance with workplace procedures |
| 4 Analyse steam turbine faults | 4.1 Causes of abnormal steam turbine plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| | 4.2 Steam turbine plant integrity and personnel safety is maintained in consultation with relevant personnel, |

		technical and operational documentation in accordance with workplace procedures
5 Monitor steam turbine plant	5.1	Steam turbine plant is monitored for normal operation and to detect deviations in accordance with workplace procedures
	5.2	Relevant personnel are notified when defects are detected in accordance with workplace procedures
6 Complete documentation	6.1	Steam turbine plant problems, movements and status are reported in accordance with workplace procedures
	6.2	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 UEPOPS340 Operate and monitor a steam turbine.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>