



Australian Government

UEPOPS131 Run up a steam turbine

Release: 1

UEPOPS131 Run up a steam turbine

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 a steam turbine run-up to a stable operating condition.

Run-up of a steam turbine will involve the operator making a sequence of checks prior to and during start-up. This ensures that loading the turbine is completed in a safe and consistent manner.

Competency in this unit requires the ability to plan and prepare steam turbine run-up work, conduct steam turbine run-up, test steam turbine 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.

- | | |
|---|---|
| 1 Plan and prepare steam turbine 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 |
| | 1.4 Turbine running-up and loading schedule are ascertained from relevant documentation in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 2 Take action to commence run-up steam turbine | 2.1 Steam turbine and generator auxiliary systems are made available to support steam turbine run-up in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.2 Steam turbine plant is monitored to detect deviations from normal operating conditions in accordance with workplace procedures |
| | 2.3 Corrective actions are taken to rectify steam turbine abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.4 Steam generator is synchronised and connected to electrical system in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 3 Test steam turbine plant operation | 3.1 Tests are performed in accordance with workplace procedures |
| | 3.2 Power generation system and steam turbine plant are observed for operational response in accordance with workplace procedures |
| | 3.3 Steam turbine plant is returned to required operational status upon completion of testing in accordance with |

workplace procedures

- | | | |
|---------------------------------|------------|---|
| 4 Analyse system 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 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 | Steam 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 UEPOPS411 Run up 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>