



Australian Government

UEPOPS136 Shut down a hydro turbine

Release: 1

UEPOPS136 Shut down a hydro 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 shutdown of a hydro turbine to where it can be placed at rest safely.

Shutdown of a hydro turbine will involve the operator making a sequence of checks prior to and during shutdown. This ensures that the shutdown of the turbine is completed in a safe and consistent manner.

Competency in this unit requires the ability plan and prepare hydro turbine shutdown, conduct a shutdown, test hydro turbine plant operation during shutdown, analyse hydro turbine system faults during shutdown 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 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 Hydro turbine running-up and loading schedule are ascertained from documentation in accordance with workplace procedures |
| 2 Conduct hydro turbine shutdown | 2.1 Hydro turbine load is reduced in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| | 2.2 Hydro turbine and alternator are removed from the system in accordance with manufacturers' recommendations and specifications, and workplace procedures |
| 3 Test and analyse hydro turbine plant operation during shutdown | 3.1 Tests are performed in accordance with workplace procedures |
| | 3.2 Power generation system and hydro turbine plant are observed for correct operational response in accordance with workplace procedures |
| | 3.3 Causes of abnormal hydro turbine plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| 4 Complete documentation | 4.1 Hydro turbine plant problems, movements and status are reported in accordance with workplace procedures |
| | 4.2 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 UEPOPS445 Shut down a hydro turbine.

Links

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