Australian Government

UEPOPS445 Shut down a hydro turbine

Release: 1

UEPOPS445 Shut down a hydro turbine

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

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 shut down, conduct a shutdown, test hydro turbine plant operation during shut down, 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 typically 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.

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

There are no prerequisite units.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Plan and prepare work	**1.1** Safety issues are identified, in accordance with workplace procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations
	1.2 Work requirements are identified from appropriate 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 shut down	**2.1** Hydro turbine load is reduced, in accordance with workplace procedures and manufacturers' recommendations
	2.2 Hydro turbine and alternator are removed from the system, in accordance with workplace and manufacturers' operating procedures
3 Test hydro turbine plant operation during shut down	**3.1** Tests are performed, in accordance with workplace procedures
	3.2 Power generation system and hydro turbine plant are observed, in accordance with workplace procedures for correct operational response
4 Analyse system faults during hydro turbine shut down	**4.1** Causes of abnormal hydro turbine plant operating conditions are identified, in accordance with workplace procedures, and by analysing technical and operational information
	4.2 Corrective action is taken, is in accordance with workplace procedures
5 Complete documentation	**5.1** Hydro 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS445A 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