



Australian Government

UEPOPS020 Control hydro generation pumping

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 undertake the control of hydro generation pumping through remote control of hydro generating plant.

Hydro pumping is a system for generating hydroelectric power for peak periods. This is performed by pumping water from a lower to a higher reservoir during low demand periods and then releasing it during peak periods.

Competency in this unit requires the ability to maintain key indicator limits, operate remote hydro plant, maintain policies and procedures and complete work. Individuals will, in general, work as an operator, in a power generation facility.

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 Maintain key indicator limits	1.1	Pond levels, power station discharges, plant voltage and current limits, frequency and time errors are maintained in accordance with manufacturers' recommendations and specifications, and workplace procedures
	1.2	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
	1.3	Hydro generation plant is run at peak efficiency, to the load schedule, avoiding rough running zones, in accordance with workplace procedures
2 Operate remote hydro plant	2.1	Hydro generation power plant is remotely stopped, started, loaded and unloaded in accordance with the electricity generation schedule and workplace procedures
	2.2	Power generating plant is remotely switched in and out of synchronous condenser operation in accordance with workplace procedures
3 Maintain policies and procedures	3.1	Communication procedures are used to alert public of increased river flows in accordance with workplace procedures
	3.2	Minimum river flows are maintained and agreed limits set in accordance with workplace procedures
	3.3	Water storage levels are monitored and maintained in accordance with legislative requirements and workplace procedures
4 Complete documentation	4.1	Equipment 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 UEPOPS514 Control hydro generation pumping.

Links

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