



Australian Government

UEPOPS514 Control hydro generation pumping

Release: 1

UEPOPS514 Control hydro generation pumping

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 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 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 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 workplace procedures and manufacturers' specifications

1.2 Hydro generation plant is run at peak efficiency, or 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 workplace procedures and the operating regimes dictated by the electricity generation schedule

2.2 Power generating plant is remotely switched in and out of synchronous condenser operation, as required, in accordance with workplace procedures

3 Maintain policies and procedures

3.1 Communication procedures used to alert public of increased river flows, in accordance with workplace procedures

3.2 Minimum river flows are maintained, in accordance with workplace procedures and agreed limits

3.3 Water storage levels are monitored and maintained, in accordance with workplace procedures, legislative requirements and policy guidelines

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS514B Control hydro generation and pumping.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>