



Australian Government

UEPOPS344 Conduct water conveyance and control

Release: 1

UEPOPS344 Conduct water conveyance and control

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 for the operation of storage, conveyance and control systems of hydro generation water supplies.

Water storage, conveyance and control systems can include dams, canals, pipelines, tunnels and related hydraulic components and structures.

Competency in this unit requires the ability to plan work, supply water for power generation, implement flood control procedures and complete all documentation. 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

Elements describe the essential outcomes.

1 Plan and prepare

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are identified, applied and monitored

1.2 Work requirements for storage, conveyance and control systems of hydro generation water supplies are identified and confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures

1.3 Resources are identified and obtained, in accordance with workplace procedures

1.4 Potential hazards are identified and risk control measures are selected, in accordance with workplace procedures

1.5 Storage, conveyance and control hydro system work is sequenced and prioritised, in accordance with workplace procedures

2 Supply water for power generation

2.1 Inspections of hydro storage and conveyance systems are scheduled and problems are reported and monitored, in accordance with workplace procedures

2.2 Water quality is monitored and recorded, in accordance with workplace procedures

2.3 Water flow regulating systems are monitored and adjusted to meet power generation needs, and other user requirements, in accordance with workplace procedures

2.4 Water flow diversions are determined to facilitate maintenance or emergency activities, in accordance with workplace procedures

2.5 Dam surveillance procedures are performed, in accordance with workplace procedures

2.6 Dam levels are maintained and monitored, in accordance with workplace procedures and power generation system

		requirements
	2.7	Functional tests of equipment are undertaken, in accordance with manufacturers' specifications and workplace procedures
3 Implement flood control procedures	3.1	Potential flood conditions are determined using data collected and reports communicated, in accordance with workplace procedures
	3.2	Flood control procedures are implemented, in accordance with workplace procedures
	3.3	Flood control outcomes are monitored, recorded and reported to appropriate personnel and are reviewed, in accordance with 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS344B Conduct water conveyance and control.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for UEPOPS344 Conduct water conveyance and control

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and includes:

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel
- completing documentation using documenting, reporting and recording procedures
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- managing water supplies for hydro power generation
- planning and preparing for work
- responding to abnormal storage, conveyance and control hydro system operating conditions
- using flood control
- utilising testing and diagnostic techniques
- working with water control systems

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions and includes knowledge of:

- hydro equipment operation including capacity and limitations
- hydro power generating plant and equipment, its location and operating parameters
- hydroelectric generation including hydro turbine, hydro turbine governor and hydro generator types and characteristics
- implementation of flood control
- legislation, industry standards, codes of practice and regulations
- management of water supplies for hydro generation

- manufacturers' specifications and manuals
- typical arrangements of hydro power production plant
- water control systems
- WHS/OHS legislated requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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