



**Australian Government**

# **UEPOPS321 Operate and monitor water treatment plant**

**Release: 1**

# UEPOPS321 Operate and monitor water treatment plant

## 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 operate, inspect and monitor water treatment and purification plant.

Water treatment plants are typically used to clean waste water for reuse or discharge in power generation facilities. The water treatment process involves the purification of water through the removal of undesirable chemicals, contaminants, solids and gases.

Competency in this unit requires the ability to plan work, operate water treatment plant, test water treatment plant, analyse water treatment plant faults, monitor and inspect water treatment plant and the completion of all 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 related operating and monitoring water treatment plant are identified, in accordance with workplace procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations and legislative requirements
- 1.2 Work requirements are identified, in accordance with workplace procedures, from relevant personnel and documentation
- 1.3 Documentation to determine water treatment plant status is assessed and evaluated, in accordance with workplace procedures
- 1.4 Inspection and field preparation for water treatment plant service are carried out, in accordance with workplace procedures and manufacturers' recommendations
- 1.5 Water treatment plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.6 Sequence for recommissioning of water treatment plant is determined, in accordance with workplace procedures and site requirements

#### 2 Operate water treatment plant

- 2.1 Water treatment plant is operated, in accordance with workplace procedures and manufacturers' operating recommendations
- 2.2 Water treatment plant is monitored and observed, in accordance with workplace procedures, to detect deviations from normal operating conditions
- 2.3 Corrective actions are taken to rectify abnormalities, in accordance with workplace procedures and manufacturers' recommendations

#### 3 Test water treatment plant operation

- 3.1 Operational tests are performed, in accordance with workplace procedures

- 3.2** Water treatment plant is observed for correct operational response, in accordance with workplace procedures
  - 3.3** Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, water treatment plant integrity or personnel safety requirements
  - 3.4** Water treatment plant is returned to required operational status upon completion of testing, in accordance with workplace procedures
- 4 Analyse water treatment plant faults**
  - 4.1** Causes of abnormal water treatment plant operating conditions are identified, in accordance with workplace procedures, and by analysing technical and operational information
  - 4.2** Corrective action is taken, in accordance with workplace procedures
  - 4.3** Water treatment plant integrity and personnel safety is maintained, in accordance with workplace procedures, and in consultation with appropriate personnel and technical and operational documentation
- 5 Monitor and inspect water treatment plant**
  - 5.1** Water treatment plant to be monitored and inspected is physically identified, in accordance with workplace procedures
  - 5.2** Water treatment plant is monitored and inspected, in accordance with workplace procedures for normal operation or to detect deviations
  - 5.3** Corrective action is taken, in accordance with workplace procedures
  - 5.4** Appropriate personnel are notified, in accordance with workplace procedures, when defects are detected
- 6 Complete documentation**
  - 6.1** Water treatment plant problems, movements and status are reported, in accordance with workplace procedures
  - 6.2** 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 UEPOPS321B Operate and monitor water treatment plant.

## **Links**

Companion Volume implementation guides are found in VETNet -

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