



Australian Government

UEPOPS119 Operate waste and contaminated water plant

Release: 1

UEPOPS119 Operate waste and contaminated water plant

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 operate, inspect and monitor waste and contaminated water plant associated with a power generating facility.

Wastewater treatment covers the mechanisms and processes used to treat wastewater that is produced as a by-product of power generation activities. Wastewater from generating plants can contain significant levels of metals, flue gas desulfurization, fly ash, bottom ash and flue gas mercury. After treatment, the treated wastewater can be either reused or released.

Competency in this unit requires the ability to plan and prepare waste and contaminated water plant; operate, test, analyse and inspect plant; report on abnormalities and complete documentation. Individuals will, in general, work under supervision, in a power generation facility as an operator.

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

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Plan and prepare waste and contaminated water plant work

- 1.1** 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
- 1.2** Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures
- 1.3** Documentation to determine waste and contaminated water plant status is assessed and evaluated in accordance with workplace procedures
- 1.4** Inspection for waste and contaminated water plant service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Waste and contaminated water plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.6** Sequence for recommissioning of waste and contaminated water plant is determined in accordance with workplace procedures

2 Conduct operation of waste and contaminated water plant

- 2.1** Waste and contaminated water plant is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 2.2** Waste and contaminated water plant is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures
- 2.3** Corrective actions are taken to rectify waste and contaminated water abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 2.4** Waste and contaminated water plant is removed from service in accordance with workplace procedures

3 Test waste and contaminated water plant

- 3.1** Tests are performed in accordance with environmental requirements, manufacturers' recommendations and

operation		specifications, and workplace procedures
	3.2	Waste and contaminated water plant is observed for operational response in accordance with legislative requirements and workplace procedures
	3.3	Waste and contaminated water plant is returned to required operational status upon completion of testing in accordance with legislative requirements and workplace procedures
4 Analyse waste and contaminated water plant faults	4.1	Causes of abnormal waste and contaminated water plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures
	4.2	Waste and contaminated water plant integrity and personnel safety is maintained, through consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures
5 Monitor and inspect waste and contaminated water plant	5.1	Waste and contaminated water plant to be monitored and inspected is identified in accordance with workplace procedures
	5.2	Waste and contaminated water plant is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures,
	5.3	Relevant personnel are notified when defects are detected in accordance with workplace procedures
6 Complete documentation	6.1	Waste and contaminated water 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 UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS246 Operate waste and contaminated water plant.

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 UEPOPS119 Operate waste and contaminated water plant

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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 and performance criteria on at least two separate occasions and include:

- applying work health and safety (WHS)/occupational health and safety (OHS) regulations, including:
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel
- completing documentation
- complying with regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- identifying and responding to abnormal waste and contaminated water plant operating conditions
- interpreting drawings and manuals
- monitoring and inspecting waste and contaminated water plant
- operating waste contaminated water plant
- organising resources
- planning work
- preparing waste and contaminated water plant or equipment for operation
- reporting on waste and contaminated water plant status
- testing waste and contaminated water plant using diagnostic and data analysis techniques
- using testing and measurement instruments to identify faults and abnormalities
- working with permit to work system.

Knowledge Evidence

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

- arrangements of power production plant
- manuals

- permit to work system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- testing and fault-finding techniques
- waste and contaminated water plant and equipment, location and operating parameters
- WHS/OHS requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

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 (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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