



Australian Government

UEPOPS110 Operate and monitor water systems condensate and feedwater

Release: 1

UEPOPS110 Operate and monitor water systems condensate and feedwater

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 water systems condensate and feedwater.

Water systems are used to supply high-quality water to the generator and to heat water. Between the condenser and feedwater pump, the water is called condensate and between the feedwater pump and the generator the water is called feedwater.

Competency in this unit requires the ability to plan work, operate water system condensate and feedwater plant, test water system plant, analyse water system plant faults, monitor and inspect water system plant, and complete all documentation. Individuals will, in general, work as an operator in a power generation plant.

Power generation plant operators are trained and authorised to isolate, prepare plant and issue permits.

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 for water systems plant operation

- 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 including permits are identified from relevant personnel and documentation in accordance with workplace procedures
- 1.3** Documentation to determine water system plant status is assessed and evaluated in accordance with workplace procedures
- 1.4** Inspection, preoperational checks and field preparation for water system plant service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Water system plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.6** Sequence for recommissioning of water system plant is determined in accordance with workplace procedures

2 Operate water system plant

- 2.1** Water system plant is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 2.2** Water system 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 water system abnormalities in accordance with workplace procedures

3 Test water system plant operation

- 3.1** Operational tests are performed in accordance with workplace procedures
- 3.2** Water system plant is observed for correct operational response in accordance with workplace procedures
- 3.3** Water system plant is returned to required operational status upon completion of testing in accordance with

		workplace procedures
4 Analyse water system plant faults	4.1	Causes of abnormal water system plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures
	4.2	Water system plant integrity and personnel safety is maintained in consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures
5 Monitor and inspect water system plant	5.1	Water system plant is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures
	5.2	Relevant personnel are notified when defects are detected in accordance with workplace procedures
6 Complete documentation	6.1	Water system 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 UEPOPS331 Operate and monitor water systems condensate and feedwater.

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 UEPOPS110 Operate and monitor water systems condensate and feedwater

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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:

- analysing water system plant faults using data analysis techniques and tools
- applying work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - emergency procedures
 - risk control measures
 - safe work practices
- communicating with personnel
- completing documentation using recording procedures
- identifying water system plant status
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- monitoring and inspecting water system plant operations
- operating water system
- organising resources
- performing isolations
- preparing and planning work
- recognising and responding to abnormal water system plant operating conditions
- testing water system condensate and feedwater plant operationally using diagnostic and testing techniques
- using permit system
- working with water system plant and equipment.

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
- characteristic water system plant faults and corrective actions

- feedwater system plant types and characteristics, including feedwater chemical treatments
- isolations
- manuals
- permit system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- water system plant and equipment, location and operating parameters
- water system plant status
- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe work 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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