



Australian Government

UEPOPS109 Operate and monitor water quality monitoring systems

Release: 1

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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 and monitor water quality monitoring systems in a power generation facility. These systems include all analytical devices used to monitor process chemical conditions.

Water quality refers to the chemical, physical, biological and/or radiological characteristics of water. Water quality is a crucial factor for avoiding corrosion and scaling of turbines, boilers and pipes in power generating plant.

Competency in this unit requires the ability to plan work, operate water quality monitoring systems plant, test water quality monitoring systems plant, analyse water quality monitoring systems plant faults, monitor and inspect water quality monitoring systems plant, and complete all 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 outcomes.

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

1 Plan and prepare 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 water quality monitoring system plant status is assessed and evaluated in accordance with workplace procedures
- 1.4** Water quality monitoring system plant inspection is carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Water quality monitoring system plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.6** Sequence for recommissioning of water quality monitoring system plant is determined in accordance with workplace procedures

2 Operate water quality monitoring system plant

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

3 Test water quality monitoring system plant operation

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

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| | 3.2 | Water quality monitoring system plant is observed for correct operational response in accordance with workplace procedures |
| | 3.3 | Water quality monitoring system plant is returned to required operational status upon completion of testing in accordance with workplace procedures |
| 4 Analyse water quality monitoring system plant conditions | 4.1 | Cause of abnormal water quality monitoring system plant conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| | 4.2 | Water quality monitoring 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 quality monitoring system plant | 5.1 | Water quality monitoring 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 quality monitoring systems plant problems, movements, abnormalities 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 UEPOPS325 Operate and monitor water quality monitoring systems.

Links

Companion Volume implementation guides are found in VETNet -

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