



Australian Government

UEPOPS077 Operate and monitor alkalinity reduction plant

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, inspect and monitor alkalinity reduction plant which includes cooling tower water dosing equipment.

Alkalinity is a measure of the bicarbonates and carbonates in water, i.e. a measure of limestone content in water. Alkalinity can affect the chlorine residual in power generation plant effluent.

Competency in this unit requires the ability to plan work, operate alkalinity reduction plant, test alkalinity reduction plant, analyse alkalinity reduction plant faults, monitor and inspect alkalinity reduction 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

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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| 1 Plan and prepare work | <ul style="list-style-type: none">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 monitored1.2 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures1.3 Documentation to determine alkalinity reduction plant status is assessed and evaluated in accordance with workplace procedures1.4 Inspection and field preparation for alkalinity reduction plant service is carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures1.5 Alkalinity reduction plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures1.6 Sequence for recommissioning of alkalinity reduction plant is determined in accordance with workplace procedures |
| 2 Operate alkalinity reduction plant | <ul style="list-style-type: none">2.1 Alkalinity reduction plant is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures2.2 Alkalinity reduction plant is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures2.3 Corrective actions are taken to rectify abnormalities in alkalinity reduction plant in accordance with manufacturers' recommendations and specifications, and workplace procedures2.4 Alkalinity reduction plant is identified and removed from service in accordance with workplace procedures |
| 3 Test alkalinity reduction plant operation | <ul style="list-style-type: none">3.1 Operational tests are performed in accordance with workplace procedures3.2 Alkalinity reduction plant is observed for operational |

		response in accordance with workplace procedures
	3.3	Alkalinity reduction plant is returned to required operational status upon completion of testing in accordance with workplace procedures
4 Analyse alkalinity reduction plant faults	4.1	Causes of abnormal alkalinity reduction plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures
	4.2	Alkalinity reduction plant integrity and personnel safety are maintained in consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures
5 Monitor and inspect alkalinity reduction plant	5.1	Alkalinity reduction 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	Alkalinity reduction 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 UEPOPS322 Operate and monitor alkalinity reduction plant.

Links

Companion Volume implementation guides are found in VETNet -

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