



Australian Government

UEPOPS324 Operate and monitor brine concentrator plant

Release: 1

UEPOPS324 Operate and monitor brine concentrator 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 brine concentrator plant.

Power generation facilities typically produce waste water that contains minerals and solids. Brine concentrators are used to remove these impurities as part of the waste water management and treatment process.

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

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Plan and prepare work

1.1 Safety issues related to operating and monitoring brine concentrator 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 appropriate personnel and documentation

1.3 Documentation to determine brine concentrator plant status is assessed and evaluated, in accordance with workplace procedures

1.4 Inspection and field preparations for brine concentrator service are carried out, in accordance with workplace and manufacturers' procedures

1.5 Brine concentrator plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations

1.6 Sequence for recommissioning of brine concentrator plant is determined, in accordance with workplace procedures and site requirements

2 Operate brine concentrator plant

2.1 Brine concentrator plant is operated, in accordance with workplace procedures and manufacturers' operating recommendations

2.2 Brine concentrator 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 brine concentrator abnormalities, in accordance with workplace procedures and manufacturers' recommendations

2.4 Brine concentrator plant is identified and removed from service, in accordance with workplace procedures and site requirements

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| | 2.5 | Corrective actions are taken, in accordance with workplace procedures when brine concentrator abnormalities are identified during removal from service |
| 3 Test brine concentrator plant operation | 3.1 | Operational tests are performed, in accordance with workplace procedures |
| | 3.2 | Brine concentrator 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, brine concentrator plant integrity or personnel safety requirements |
| | 3.4 | Brine concentrator plant is returned to required operational status upon completion of testing, in accordance with workplace procedures |
| 4 Analyse brine concentrator plant faults | 4.1 | Cause of abnormal brine concentrator plant operating conditions are identified, in accordance with workplace procedures, by analysing technical and operational information |
| | 4.2 | Corrective action is taken, in accordance with workplace procedures |
| | 4.3 | Brine concentrator 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 brine concentrator plant | 5.1 | Brine concentrator plant to be monitored or inspected is physically identified, in accordance with workplace procedures |
| | 5.2 | Brine concentrator plant is monitored or inspected, in accordance with workplace procedures for normal operation or to detect deviations |
| | 5.3 | Corrective action is taken, in accordance with workplace procedures |
| 6 Complete documentation | 6.1 | Brine concentrator 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS324B Operate and monitor brine concentrator 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 UEPOPS324 Operate and monitor brine concentrator plant

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and includes:

- analysing brine concentrator plant faults using data analysis techniques and tools
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - chemical uses and hazards
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel
- completing documentation using recording procedures
- identifying brine concentrator plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring and inspecting brine concentrator plant operation
- operating brine concentrator plant
- organising resources
- preparing and planning work
- recognising and responding to abnormal brine concentrator plant operating conditions
- testing brine concentrator plant operationally using diagnostic and test techniques
- working with brine concentrator plant and/or equipment
- 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, performance criteria and range of conditions and includes knowledge of:

- brine concentrator plant and equipment, its location and operating parameters
- brine concentrator plant status

- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- permit to work system
- recording procedures
- safe operating principles
- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - chemical uses and hazards
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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

Links

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