



Australian Government

UEPOPS332 Operate and monitor condenser and auxiliary cooling systems

Release: 1

UEPOPS332 Operate and monitor condenser and auxiliary cooling systems

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 condenser and auxiliary cooling systems.

Auxiliary cooling systems deliver cool water or air, as required, to reduce the heat from plant and equipment in power generation facilities. The condenser is used to change gas to liquid by cooling it.

Competency in this unit requires the ability to plan work, operate condenser cooling system plant, test condenser cooling system plant, analyse condenser cooling system plant faults, monitor and inspect condenser cooling system 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.

1 Plan and prepare work

PERFORMANCE CRITERIA

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

- 1.1** Safety issues related to operating and monitoring condenser and cooling system 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 relevant personnel and documentation
- 1.3** Documentation to determine condenser and cooling system plant status is assessed and evaluated, in accordance with workplace procedures
- 1.4** Inspection, preoperational checks and field preparation for condenser and cooling system plant service are carried out, in accordance with workplace procedures and manufacturers' recommendations
- 1.5** Condenser and cooling system plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.6** Sequence for recommissioning of condenser and cooling system plant is determined to suit existing circumstances, in accordance with workplace procedures and site requirements

2 Operate condenser and cooling system plant

- 2.1** Condenser and cooling system plant is operated, in accordance with workplace procedures and manufacturers' operating recommendations
- 2.2** Condenser cooling system 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 condenser and cooling system plant abnormalities, in accordance with workplace procedures, industry standards and site requirements

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| 3 Test condenser and cooling system plant | 3.1 Operational tests are performed, in accordance with workplace procedures |
| | 3.2 Condenser cooling system plant is observed, in accordance with workplace procedures, for correct operational response |
| | 3.3 Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, condenser and cooling system plant integrity or personnel safety requirements |
| | 3.4 Condenser and cooling system plant is returned to required operational status upon completion of testing, in accordance with workplace procedures |
| 4 Analyse condenser and cooling system plant faults | 4.1 Causes of abnormal condenser and cooling system plant operating conditions are identified, in accordance with workplace procedures, and by analysing technical and operational information |
| | 4.2 Corrective action is taken, in accordance with workplace procedures |
| | 4.3 Condenser and cooling system 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 condenser and cooling system plant | 5.1 Condenser and cooling system plant to be monitored and inspected is physically identified, in accordance with workplace procedures |
| | 5.2 Condenser and cooling system plant is monitored and inspected, in accordance with workplace procedures, for normal operation or to detect deviations |
| | 5.3 Corrective action is taken, in accordance with workplace procedure |
| | 5.4 Appropriate personnel are notified when defects are detected, in accordance with workplace procedures |
| 6 Complete documentation | 6.1 Condenser and cooling system 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 UEPOPS332B Operate and monitor condensing and cooling systems.

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 UEPOPS332 Operate and monitor condenser and auxiliary cooling systems

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 condenser and cooling 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 working practices
- communicating with personnel
- completing documentation
- identifying condenser and cooling system plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring and inspecting condenser and cooling system plant operations
- operating condenser and auxiliary cooling water system including plant and equipment
- organising resources
- preparing and planning work
- recognising and responding to abnormal condenser and cooling system plant operating conditions
- testing condenser and cooling system plant operationally using diagnostic and test techniques
- using 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:

- condenser and cooling system plant and equipment, its location and operating parameters
- condenser and cooling system plant status
- legislation, industry standards, codes of practice and regulations

- manufacturers' specifications and manuals
- permit to work system
- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - 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.

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

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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