



Australian Government

UEPOPS088 Operate and monitor condenser and auxiliary cooling systems

Release: 1

UEPOPS088 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 Electricity Supply Industry – Generation Sector Training Package Release 2.0.

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 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 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 manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Condenser and cooling system plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.6** Sequence for recommissioning of condenser and cooling system plant is determined to suit existing circumstances in accordance with workplace procedures

2 Operate condenser and cooling system plant

- 2.1** Condenser and cooling system plant are operated in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 2.2** Condenser and cooling system plant are monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures
- 2.3** Corrective actions are taken to rectify condenser and cooling system plant abnormalities in accordance with workplace procedures

3 Test condenser and cooling system plant

- 3.1** Operational tests are performed in accordance with workplace procedures
- 3.2** Condenser and cooling system plant are observed for

		correct operational response in accordance with workplace procedures
	3.3	Condenser and cooling system plant are 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 by analysing technical and operational information in accordance with workplace procedures
	4.2	Condenser and cooling 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 condenser and cooling system plant	5.1	Condenser and cooling system plant are 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	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 UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS332 Operate and monitor condenser and auxiliary

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 UEPOPS088 Operate and monitor condenser and auxiliary cooling systems

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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 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 regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting 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 testing techniques
- using work permits.

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
- condenser and cooling system plant and equipment, location and operating parameters

- condenser and cooling system plant status
- manuals
- permit to work system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe working 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

Companion Volume implementation guides are found in VETNet -

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