



Australian Government

UEPOPS309 Operate and monitor air conditioning plant and ventilation systems

Release: 1

UEPOPS309 Operate and monitor air conditioning plant and ventilation 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 and monitor air conditioning plant, ventilation systems and associated equipment.

Air conditioning is used to cool and/or dehumidify a variety of plant that is heat producing in power generation facilities. Ventilation is the process of changing or replacing air to control temperatures or remove a combination of moisture, odour, smoke, heat, dust, airborne bacteria, carbon dioxide or to replenish oxygen.

Competency in this unit requires the ability to plan work, operate and monitor air conditioning plant and ventilation systems, test air conditioning plant and ventilation system operations, identify air conditioning plant and ventilation system faults, monitor and inspect air conditioning plant and ventilation system 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 for work

2 Perform operation and monitoring of air

PERFORMANCE CRITERIA

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

- 1.1** Safety issues related to operating and monitoring air conditioning plant and ventilation systems 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, air conditioning plant and ventilation system and resource requirements are identified, in accordance with workplace procedures, and from relevant personnel and documentation
- 1.3** Quality assurance requirements are identified, in accordance with workplace procedures
- 1.4** Documentation to determine air conditioning plant and ventilation system status is assessed and evaluated, in accordance with workplace procedures
- 1.5** Inspection and field preparation for air conditioning plant and ventilation system service is carried out, in accordance with workplace and manufacturers' procedures
- 1.6** Air conditioning plant and ventilation system operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.7** Sequence and air conditioning plant and ventilation system requirements for operation is determined, in accordance with workplace procedures and site requirements
- 1.8** Reporting requirements are carried out, in accordance with workplace procedures
- 2.1** Air conditioning plant and ventilation system is operated and shut down, in accordance with workplace

conditioning equipment and ventilation systems		procedures and manufacturers' operating recommendations
	2.2	Air conditioning plant and ventilation system is monitored and observed, in accordance with workplace procedures, to detect deviations from normal operating conditions
	2.3	Air conditioning plant and ventilation system performance and quality is monitored, in accordance with workplace procedures, including temperature and airflow humidity
	2.4	Corrective actions are taken to rectify abnormalities, in accordance with workplace procedures, industry standards and site requirements
3 Test air conditioning and ventilation system plant operation	3.1	Operational tests are performed, in accordance with workplace procedures
	3.2	Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, air conditioning and ventilation system plant integrity or personnel safety requirements
	3.3	Air conditioning plant and ventilation system is returned to required operational status upon completion of testing, in accordance with workplace procedures
4 Identify air conditioning and ventilation system plant faults	4.1	Causes of abnormal air conditioning and ventilation system plant operating conditions are identified, in accordance with workplace procedures, and by analysis of technical and operational information
	4.2	Corrective action is taken, in accordance with workplace procedures
	4.3	Air conditioning plant and ventilation system 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 air conditioning and ventilation system plant	5.1	Air conditioning plant and ventilation system to be monitored and inspected is physically identified, in accordance with workplace procedures
	5.2	Air conditioning plant and ventilation system 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 procedures
- 5.4** Appropriate personnel are notified when defects are detected, in accordance with workplace procedures
- 6 Complete documentation**
- 6.1** Air conditioning plant and ventilation system 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS309B Operate and monitor air conditioning plant and ventilation 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 UEPOPS309 Operate and monitor air conditioning plant and ventilation systems

Modification History

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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, performance criteria and range of conditions on at least two separate occasions and includes:

- 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 using recording procedures
- identifying air conditioning plant and ventilation system status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring and inspecting air conditioning plant and ventilation system
- operating air conditioning plant and ventilation system including temperature and air flow using data analysis techniques and tools
- operating and monitoring air conditioning plant, equipment and ventilation system
- organising resources
- preparing air conditioning plant and ventilation system for operation
- preparing and planning work
- recognising and responding to abnormal faults in air conditioning plant and ventilation system operating conditions
- testing air conditioning plant and ventilation system operation using diagnostic test techniques and procedures
- utilising repair techniques and procedures
- 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:

- air conditioning and ventilation system plant status manufacturers' specifications and manuals
- legislation, industry standards, codes of practice and regulations
- permit to work system
- typical arrangements of power production plant
- plant and equipment, its location and operating parameters including:
 - air conditioner systems
 - ventilation systems
 - refrigerant gases
- 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.

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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.

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