



Australian Government

UEPOPS372 Operate and monitor generator/alternator auxiliary plant

Release: 1

UEPOPS372 Operate and monitor generator/alternator auxiliary 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 generator and/or alternator auxiliary plant, including stator water systems, hydrogen cooling systems, seal oil and lubricating oil systems.

A power generation facility's auxiliary equipment and systems are designed to keep power generating plant operating smoothly in a variety of circumstances.

Competency in this unit requires the ability to plan work, operate generator and/or alternator auxiliary plant, test generator and/or alternator auxiliary plant, analyse generator and/or alternator auxiliary plant faults, monitor and inspect generator and/or alternator auxiliary 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 generator and/or alternator auxiliary 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 and generator and/or alternator auxiliary plant are identified from appropriate personnel and documentation, in accordance with workplace procedures
- 1.3 Generator and/or alternator auxiliary running up and loading schedule is ascertained from relevant documentation, in accordance with workplace procedures and site requirements
- 1.4 Inspection, preoperational tests and field preparations for generator and/or alternator auxiliary plant service are carried out, in accordance with workplace procedures and manufacturers' recommendations
- 1.5 Generator and/or alternator auxiliary plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.6 Sequence for recommissioning of generator and/or alternator auxiliary plant is determined, in accordance with workplace procedures and site requirements

2 Operate generator/alternator auxiliary plant

- 2.1 Generator and/or alternator auxiliary plant is operated within limits of its' design and regulators requirements, in accordance with workplace procedures
- 2.2 Generator and/or alternator auxiliary plant is monitored and observed, in accordance with workplace procedures, to detect deviations from required operating conditions
- 2.3 Corrective actions are taken to rectify generator and/or alternator auxiliary plant abnormalities, in accordance with workplace procedures and manufacturers' recommendations

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| 3 Test generator/alternator auxiliary plant operation | 3.1 Operational tests are performed, in accordance with workplace procedures |
| | 3.2 Generator and/or alternator auxiliary 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, generator or alternator auxiliary plant integrity or personnel safety requirements |
| | 3.4 Generator and/or alternator auxiliary plant is returned to required operational status upon completion of testing, in accordance with workplace procedures |
| 4 Analyse generator/alternator auxiliary plant faults | 4.1 Cause of abnormal generator and/or alternator auxiliary plant operating conditions are identified, in accordance with workplace procedures, by analysing technical and operational information |
| | 4.2 Corrective actions to rectify generator and/or alternator auxiliary plant faults are determined, in accordance with workplace procedures |
| | 4.3 Generator and/or alternator auxiliary 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 generator/alternator auxiliary plant | 5.1 Generator and/or alternator auxiliary plant to be monitored and inspected is physically identified, in accordance with workplace procedures |
| | 5.2 Generator and/or alternator auxiliary 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 procedures |
| | 5.4 Appropriate personnel are notified, in accordance with workplace procedures, when defects are detected |
| 6 Complete documentation | 6.1 Generator and/or alternator auxiliary 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS372A Operate and monitor generator/alternator auxiliary 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 UEPOPS372 Operate and monitor generator/alternator auxiliary 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 generator and/or alternator auxiliary 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 using recording procedures
- identifying generator and/or alternator auxiliary plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring and inspecting generator and/or alternator auxiliary plant operation
- operating generator and/or alternator auxiliary plant
- organising resources
- recognising and responding to abnormal generator and/or alternator auxiliary plant operating conditions
- testing generator and/or alternator auxiliary plant operationally using diagnostic and test techniques
- working with generator and/or alternator auxiliary 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:

- generator and/or alternator auxiliary plant and equipment, its location and operating

parameters

- 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.

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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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