



Australian Government

UEPOPS099 Operate and monitor generator/alternator

Release: 1

UEPOPS099 Operate and monitor generator/alternator

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 a generator and/or alternator.

An alternator is an electrical generator that converts mechanical energy to electrical energy in the form of an alternating current (a.c.). In contrast, a generator can produce either a.c. or direct current (d.c.).

Competency in this unit requires the ability to plan work, operate generator and/or alternator plant, test generator and/or alternator plant, analyse generator and/or alternator plant faults, monitor and inspect generator and/or alternator 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 Performance criteria describe the performance needed to

outcomes.

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** Generator and/or alternator running up and loading schedule are ascertained from relevant documentation in accordance with workplace procedures
- 1.4** Inspection, preoperational tests and field preparations for generator and/or alternator plant service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Generator and/or alternator plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.6** Sequence for recommissioning of generator and/or alternator plant is determined to suit existing circumstances in accordance with workplace procedures

2 Operate generator/alternator plant

- 2.1** Output is adjusted to achieve required generator and/or alternator operating requirements and demand in accordance with workplace procedures
- 2.2** Generator and/or alternator plant is operated within limits of design in accordance with regulatory requirements and workplace procedures
- 2.3** Generator and/or alternator plant is monitored and observed to detect deviations from required operating conditions in accordance with workplace procedures
- 2.4** Corrective actions are taken to rectify generator and/or alternator abnormalities in accordance with manufacturers' recommendations and specifications, and workplace procedures

3 Test generator/alternator

- 3.1** Operational tests are performed in accordance with

plant operation		workplace procedures
	3.2	Generator and/or alternator plant is observed for correct operational response in accordance with workplace procedures
	3.3	Generator and/or alternator plant is returned to operational status upon completion of testing in accordance with workplace procedures
4 Analyse generator/alternator plant faults	4.1	Cause of abnormal generator and/or alternator plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures
	4.2	Generator and/or alternator plant integrity and personnel safety are maintained in consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures
5 Monitor and inspect generator/alternator plant	5.1	Generator and/or alternator plant to be monitored and inspected is physically identified in accordance with workplace procedures
	5.2	Generator and/or alternator plant is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures,
	5.3	Relevant personnel are notified when defects are detected in accordance with workplace procedures
6 Complete documentation	6.1	Generator and/or alternator plant 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 UEPOPS362 Operate and monitor generator/alternator.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>