



Australian Government

UEPOPS079 Operate and monitor an internal combustion single fuel reciprocating engine

Release: 1

UEPOPS079 Operate and monitor an internal combustion single fuel reciprocating engine

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 single fuel internal combustion reciprocating engines.

Competency in this unit requires the ability to plan work, operate internal combustion single fuel reciprocating engine plant, test internal combustion single fuel reciprocating engine plant operations, analyse internal combustion single fuel reciprocating engine plant faults, monitor and inspect internal combustion single fuel reciprocating engine plant, and complete all documentation. Individuals will, in general, work under supervision, in a power generating 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

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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| 1 Plan and prepare work | <ul style="list-style-type: none">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 monitored1.2 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures1.3 Documentation to determine single fuel reciprocating engine plant status is assessed and evaluated in accordance with workplace procedures1.4 Inspection and field preparation for single fuel reciprocating engine plant service is carried out in accordance with manufacturers' specifications and workplace procedures1.5 Single fuel reciprocating engine plant operational prerequisites are established in accordance with manufacturers' specifications and workplace procedures1.6 Sequence for recommissioning of single fuel reciprocating engine plant is determined to suit existing circumstances in accordance with workplace procedures |
| 2 Operate single fuel reciprocating engine plant | <ul style="list-style-type: none">2.1 Single fuel reciprocating engine plant is operated in accordance with manufacturers' specifications and workplace procedures2.2 Single fuel reciprocating engine plant is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures2.3 Corrective actions are taken to rectify abnormalities in accordance with manufacturers' specifications and workplace procedures |
| 3 Test single fuel reciprocating engine plant operation | <ul style="list-style-type: none">3.1 Operational tests are performed in accordance with workplace procedures3.2 Single fuel reciprocating engine plant is observed for correct operational response in accordance with workplace procedures3.3 Relevant personnel are notified when defects are |

		detected in accordance with workplace procedures
4 Analyse single fuel reciprocating engine plant faults	4.1	Causes of abnormal single fuel reciprocating engine plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures
	4.2	Single fuel reciprocating engine 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 single fuel reciprocating engine plant	5.1	Single fuel reciprocating engine plant is monitored and inspected 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	Single fuel reciprocating engine 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 UEPOPS247 Operate and monitor an internal combustion single fuel reciprocating engine.

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 UEPOPS079 Operate and monitor an internal combustion single fuel reciprocating engine

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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 single fuel engine plant faults using data analysis techniques and tools
- applying work health and safety (OHS)/occupational health and safety (OHS) requirements, including:
 - emergency procedures
 - risk controls
 - safe work practices
- communicating with personnel
- completing documentation using recording procedures
- complying with regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- identifying single fuel engine plant status
- interpreting manuals
- monitoring and inspecting single fuel engine plant operation
- operating single fuel engines
- organising resources
- preparing and planning work
- preparing single fuel engine plant and equipment for operation
- recognising and responding to abnormal single fuel engine plant operating conditions
- testing single fuel engine plant operationally using diagnostic and testing techniques.

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:

- manuals
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- single fuel engine internal combustion reciprocating engine types and characteristics

- single fuel engine plant and equipment, location and operating parameters
- single fuel engine plant status
- WHS/OHS legislated requirements, including:
 - emergency procedures
 - risk control measures
 - safe work 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

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