



Australian Government

UEPOPS510 Monitor power generation plant reliability

Release: 1

UEPOPS510 Monitor power generation plant reliability

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 monitor power generating plant reliability through data assessment.

Data is collected and assessed to accurately evaluate the impact of power generating plant reliability in the operation of power generation facilities.

Competency in this unit requires the ability to collect data, perform calculations, evaluate and analyse information and produce reports and complete work. Individuals will, in general, work under supervision as an operator, in a power generation facility.

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 Collect data

PERFORMANCE CRITERIA

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

1.1 Information and data is collected, in accordance with legislative requirements, industry standards and workplace procedures

1.2 Generating plant is identified and its' status is established, in accordance with workplace procedures

1.3 Tools and equipment are identified and acquired, in accordance with workplace procedures

1.4 Specialist assistance or equipment is obtained, as required, in accordance with workplace procedures

1.5 Information collected is recorded and ranked, in accordance with legislative requirements, industry standards and workplace procedures

2 Perform calculations

2.1 Performance calculations are undertaken, in accordance with legislative requirements, industry standards and workplace procedures

2.2 Calculations are checked for accuracy, in accordance with workplace procedures

3 Analyse information

3.1 Technical and operational information is analysed, in accordance with workplace procedures, to identify abnormal generating plant operating conditions

3.2 Causes of abnormal generating plant conditions are identified, in accordance with workplace procedures

3.3 Generating plant integrity is maintained, in accordance with workplace procedures, and in consultation with relevant personnel and operational documentation

3.4 Need for specialist assistance is determined, in accordance with workplace procedures

4 Produce report and complete work

4.1 Information and data is documented, in accordance with workplace procedures

4.2 Reports are produced, in accordance with legislative requirements, industry standards and workplace

procedures

- 4.3** Actions to rectify generating plant loss of reliability are ranked, and recommendations are made to appropriate personnel, in accordance with workplace procedures
- 4.4** Implementation of recommendations is monitored, in accordance with workplace procedures, to ensure generating plant reliability

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 UEPOPS510B Monitor power generation plant reliability.

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 UEPOPS510 Monitor power generation plant reliability

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:

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - risk control measures
 - site safety procedures
- collecting data
- communicating with personnel
- determining generation plant reliability performance
- evaluating and analysing information and data
- identifying generating plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- performing calculations
- producing reports and completing work
- recording and analysing data using analysis techniques and tools

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:

- calculation methods
- data collection and analysing techniques
- generation plant and equipment, its location and operating parameters
- generation plant monitoring processes and procedures
- generation plant status
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals

- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - emergency procedures
 - risk control measures
 - site safety procedures
- 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.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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

Companion Volume implementation guides are found in VETNet -

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