



**Australian Government**

# **UEPOPS046 Maintain battery banks and cells**

**Release: 1**

# UEPOPS046 Maintain battery banks and cells

## 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 undertake the maintenance of all battery cells or banks.

Batteries store energy so that it can be used when needed. Batteries can be charged, discharged and recharged several times. The types of equipment supported by batteries in a power generation facility can include emergency lighting systems and alarm and protection systems.

Competency in this unit requires the ability to plan and prepare for battery cell/bank maintenance work, conduct tests on battery cell/bank, analyse results of tests to determine capability, perform routine maintenance, report abnormalities and document work when completed. Individuals will, in general, work as an operator, in a power generation facility.

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.

- 1 Plan and prepare for work**
  - 1.1** Work requirements are identified from relevant personnel, documentation and site inspection in accordance with workplace procedures
  - 1.2** 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
  - 1.3** Resources are obtained and inspected for compliance with job specification in accordance with workplace procedures
  - 1.4** Relevant plans, drawings and manuals are selected and used in accordance with workplace procedures
  - 1.5** Size, type and quantity of materials and components are obtained and inspected in accordance with workplace procedures
  - 1.6** Work is sequenced and prioritised in accordance with workplace procedures
  - 1.7** Potential hazards and risk control measures are selected and implemented in accordance with safety data sheets (SDS) processes and workplace procedures
  - 1.8** Work area is prepared in accordance with workplace procedures
- 2 Conduct tests on battery cell/bank**
  - 2.1** Battery cell and/or bank is inspected prior to testing to ensure absence of any damage and defects in accordance with workplace procedures
  - 2.2** Tests are carried out to determine battery cell or bank condition in accordance with workplace procedures
  - 2.3** Test results are recorded and analysed to determine battery cell and/or bank capabilities in accordance with workplace procedures
  - 2.4** Testing and measurement instruments are used in accordance with manufacturers' recommendations and specifications, and workplace procedures
  - 2.5** Faults found are documented and reported to relevant personnel in accordance with workplace procedures

- |                                                   |                                                                                                                               |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>3 Conduct maintenance on battery cell/bank</b> | <b>3.1</b> Isolations are confirmed in accordance with workplace procedures                                                   |
|                                                   | <b>3.2</b> Battery cell and/or bank is maintained using plans, drawings and manuals in accordance with workplace procedures   |
|                                                   | <b>3.3</b> Cleaning or adjustments are carried out on battery cell and/or bank in accordance with workplace procedures        |
|                                                   | <b>3.4</b> Maintenance and adjustments are carried out in accordance with workplace procedures                                |
|                                                   | <b>3.5</b> Final inspection is carried out in accordance with workplace procedures.                                           |
| <b>4 Complete work</b>                            | <b>4.1</b> Battery cell and/or bank work is completed and relevant personnel notified in accordance with workplace procedures |
|                                                   | <b>4.2</b> Work area is cleared of waste, cleaned, restored and secured in accordance with workplace procedures               |
|                                                   | <b>4.3</b> Battery cell and/or bank tools and equipment are maintained and stored 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 UEPOPS238 Maintain battery banks and cells.

## 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 UEPOPS046 Maintain battery banks and cells

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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:

- applying maintenance techniques to repair faults
- applying work health and safety (WHS)/occupational health and safety (OHS) regulations, including:
  - emergency procedures
  - risk control measures
  - safe working procedures
- communicating with personnel
- complying regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting drawings and manuals
- maintaining battery cell and/or bank equipment
- reporting findings
- selecting equipment and material
- testing battery cell or bank using diagnostic and data analysis techniques
- using safety data sheets (SDS)
- using testing and measurement instruments to identify faults and abnormalities
- utilising permit to work system
- working with isolation procedures.

## 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:

- battery cell and/or bank testing and maintenance procedures
- battery plant operation
- drawings and manuals
- isolations
- maintenance techniques

- permit to work system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- safety and hazard precautions
- SDS
- testing and fault-finding techniques
- workplace documentation
- WHS/OHS requirements, including:
  - applying isolation procedures
  - emergency procedures
  - risk control measures
  - safe working procedures
- 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

Companion Volume implementation guides are found in VETNet -

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