



Australian Government

UEERE0006 Conduct periodic maintenance of remote area power supply battery banks

Release: 2

UEERE0006 Conduct periodic maintenance of remote area power supply battery banks

Modification History

Release 2. This minor update is the second release of this unit of competency in the UEE Electrotechnology Training Package.

Typographic error in prerequisite option requirements fixed.

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to conduct periodic maintenance of remote area power supply (RAPS) battery banks where the exposed voltage is not greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c).

It includes preparing for, completing and reporting on maintenance of RAPS battery banks.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEERE0019 Maintain safety and tidiness of remote area power supply systems

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEERE0023 Work safely with remote area power supply systems

and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to conduct periodic maintenance of RAPS battery banks

PERFORMANCE CRITERIA

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

1.1 Work health and safety (WHS)/occupational health and safety (OHS) procedures for a RAPS plant are identified and applied in accordance with workplace procedures

1.2 Risk control measures are applied in accordance with workplace procedures prior to commencing work

1.3 Risks/hazards are identified, assessed, reported to relevant person/s and control measures implemented

1.4 Nature and location of RAPS system is identified from relevant documentation or from relevant person/s to determine the scope of work

1.5 Instructions for coordinating work with relevant personnel and the local community is obtained from relevant person/s and applied

1.6 Materials required for the work are identified and accessed in accordance with workplace procedures

1.7 Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety

2 Maintain RAPS systems battery banks

2.1 Workplace risk control measures and procedures are applied

2.2 Need to test or measure live electrical work is determined in accordance with WHS/OHS requirements and conducted in accordance with workplace procedures

2.3 Circuits/machines/plant are isolated in accordance with WHS/OHS requirements and workplace procedures

2.4 RAPS system battery banks are tested in accordance with relevant workplace procedures

- | | | |
|----------|---|---|
| | 2.5 | Battery bank maintenance, including performance measurements and repairs, is completed safely in accordance with workplace routines and procedures |
| | 2.6 | Known types of battery functional faults are identified using fault-finding procedures |
| | 2.7 | Non-routine events are referred to relevant person/s for directions in accordance with workplace procedures |
| | 2.8 | Maintenance and repair work is completed minimising waste of materials, energy, damage to apparatus, circuits, the surrounding environment and services |
| | 2.9 | Quality checks are conducted in accordance with workplace procedures |
| 3 | Complete maintenance work on battery banks and report outcomes | |
| | 3.1 | Workplace risk control measures and procedures are applied |
| | 3.2 | Worksite is cleaned and made safe in accordance with workplace procedures |
| | 3.3 | Maintenance issues are referred to the local community in accordance with workplace procedures |
| | 3.4 | Battery bank performance measurements are reported to relevant person/s in accordance with maintenance reporting 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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK103A Conduct periodic maintenance of remote

area power supply battery banks.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEERE0006 Conduct periodic maintenance of remote area power supply battery banks

Modification History

Release 2. This minor update is the second release of this unit of competency in the UEE Electrotechnology Training Package.

Typographic error in prerequisite option requirements fixed.

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- measuring and recording specific gravity of electrolyte
- measuring and recording cell voltages
- visually inspecting batteries for low electrolyte levels, electrolyte leakage, and corroded terminals and connections
- topping up low electrolyte levels
- identifying electrolyte leaks
- cleaning corroded terminals and connections and treating with an anticorrosive
- reporting all maintenance activities
- dealing with unplanned events
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures and practices, including the use of risk control measures
- checking isolation of circuits/machines/systems
- coordinating work with relevant person/s and the local community
- determining live testing/measurement requirements
- identifying and accessing materials, tools, equipment and testing devices
- maintaining remote area power supply (RAPS) battery banks, including:
 - conducting quality checks.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- RAPS systems battery bank maintenance techniques, including:
 - basic battery maintenance encompassing:

- scope of regular testing, checking and corrective actions
- measurement of specific gravity and voltages of battery cells
- checking and topping up electrolyte levels
- checking for acid leakage, cracks in battery casing, corrosion of battery terminals and connections
- cleaning of terminal connections and treating with an anticorrosive
- battery bank performance measurement
- methods for identification of battery bank faults
- relevant battery manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace documentation, 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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable 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
- resources that reflect current industry practice in relation to conducting periodic maintenance of RAPS battery banks
- 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=b8a8f136-5421-4ce1-92e0-2b50341431b6>