



Australian Government

UEERE0018 Maintain and repair remote area power generation facilities

Release: 1

UEERE0018 Maintain and repair remote area power generation facilities

Modification History

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 maintain and repair remote area power generation facilities.

It includes preparing for, conducting and reporting on maintenance and repair of remote area power generation facilities.

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

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

UEERE0019 Maintain safety and tidiness of remote area power supply systems

UEERE0023 Work safely with remote area power supply systems

UEERE0007 Conduct periodic maintenance of remote area power supply generator sets
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.

PERFORMANCE CRITERIA

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

1 Prepare to maintain and repair remote area power generation facilities

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements for a remote area power generation facility are identified and applied in accordance with workplace routines and procedures
- 1.2** Risks are identified, assessed and control measures 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 remote area power station facility is obtained from documentation or from relevant person/s to determine the scope of work
- 1.5** Advice on coordinating work with others and the local community is obtained from relevant person/s and applied
- 1.6** Sources of materials required for work are identified and accessed in accordance with workplace routines and procedures
- 1.7** Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety

2 Maintain and repair remote area power generation facilities

- 2.1** Workplace risk control measures and procedures are applied
- 2.2** Circuits/machines/plant are isolated in accordance with WHS/OHS requirements and workplace procedures
- 2.2** Inspection repairs, replacements and/or adjustments are completed on items listed in the maintenance schedule and in accordance with workplace procedures
- 2.3** Fuel, coolant, oil and other fluid spills are cleaned and area made safe in accordance with workplace procedures

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| | 2.4 | Batteries are serviced and/or replaced as specified in the maintenance schedule and in accordance with workplace procedures |
| | 2.5 | Consumables are removed and disposed of in accordance with environmentally safe procedures |
| | 2.6 | Non-routine events are referred to relevant person/s for directions in accordance with workplace procedures |
| | 2.7 | Quality checks are conducted in accordance with instructions and workplace procedures |
| 3 | Report maintenance and repair of remote area power generation facilities | |
| | 3.1 | Workplace risk control measures and procedures are applied |
| | 3.2 | Maintenance issues beyond the scope of work are referred to relevant person/s in accordance with workplace procedures |
| | 3.3 | Work completed is reported to relevant person/s in accordance with maintenance reporting and 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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEK116A Maintain and repair remote area power generation facilities.

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 UEERE0018 Maintain and repair remote area power generation facilities

Modification History

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:

- understanding the location and nature of the work required
- 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
- determining scope of work from documentation and/or relevant person/s
- identifying and accessing materials, tools, equipment and testing devices
- coordinating work with relevant person/s
- checking isolation of circuits/machines/systems
- correctly inspecting, repairing, replacing and adjusting items listed in the maintenance schedule
- maintaining and repairing remote area power generation facilities
- servicing batteries and battery packs in a community power station
- cleaning fluid spills appropriately
- removing and disposing of consumable following environmentally safe procedures
- conducting quality checks
- dealing with unplanned events
- applying environmentally safe work practices
- completing relevant documentation/reporting.

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:

- remote area essential services power plant, including:
 - minor service and maintenance procedures of diesel-powered generation equipment in accordance with a prepared schedule encompassing:
 - types and grades of inspections, repairs, replacement and/or adjustments under a maintenance schedule:
 - replacement items/materials, including engine oil, oil filters, fuel filters, engine

- coolant system filters, air cleaners and fan belts
- inspection and repair items, including leakages from fuel system, coolant system and lubricating oil system
- cleaning of fluid spills
- environmentally safe procedures for removal and disposal of consumables
- servicing batteries and battery packs in a community power station in accordance with the prepared maintenance schedule encompassing:
 - hazards associated with batteries
 - types of batteries and their application in a community power station (starting battery set and switchboard (nicad) batteries)
 - battery maintenance techniques
- schedule regular servicing and maintenance encompassing:
 - engine oil and filter changes
 - fuel filters
 - coolant filters
 - water trap devices
 - drive belt (condition/adjustment)
 - valve adjustments (if applicable)
 - major and minor mechanical servicing by outside agents
 - air cleaner (both dry paper and oil bath types)
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant 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 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 practices in relation to maintaining and repairing facilities associated with remote area essential service operations
- 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>