



Australian Government

Assessment Requirements for UETDRRC005 Maintain, test and verify power systems in a very remote community

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package Release 2.0.

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:

- applying relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - work health and safety (WHS)/occupational health and safety (OHS)
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- preparing, issuing and signing on and off relevant work permits in accordance with workplace requirements
- isolating and restoring generation power systems, including:
 - identifying isolation points
 - preparing a generation isolation and restoration permit to work schedule
 - obtaining authorisation to isolate and restore generation power systems
 - isolating and restoring generation power systems in accordance with switching/isolation schedule
- maintaining generation power system, including:
 - conducting routine safety inspections
 - inspecting generation power system facilities
 - carrying out scheduled generator engine service
 - checking generation power system fuel facilities
 - conducting generation power station operational readings
- testing and maintaining generation power systems, including:
 - electrical equipment and switchgear
 - electrical earthing systems
 - identifying non-compliance
 - rectifying non-compliance or defects
 - completing testing documentation
- confirming network apparatus and network electrical circuits are isolated
- determining the operating parameters of a circuit within the electrical network apparatus
- using established methodical processes to solve electrical problems in accordance with

workplace requirements, including:

- choosing correct instruments and ranges for testing and measuring values
- connecting instruments to measure and calculate values in electrical network apparatus and network circuits
- identifying electrical network apparatus and network circuits problems, including at least three (3) of the following:
 - high (HV)/low voltage (LV)
 - high resistance
 - low resistance
 - fault current (fuses)
 - kilowatt hour meter faults (no supply, reverse polarity etc)
 - public lighting faults
- working from at least one (1) of the following:
 - elevated work platform (EWP)
 - platform
 - ladder
- connecting and testing electrical network apparatus and network circuits to determine correct operation
- removing earthing/short circuiting equipment and re-energising electrical network apparatus and network circuits in accordance with workplace requirements
- dealing with an unplanned event on at least one (1) occasion
- completing relevant work records, reports and documentation.

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:

- legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
 - environmental
 - wiring rules requirements – continuity test and insulation resistance test
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of plant, tools and equipment
- types, purpose and application of work permits
- organisational workplace requirements, including:
 - generation power systems
 - electrical safety
 - isolation and restoration switching schedules
- generation power systems, including:

- balance of plant
- piping and instrument diagrams
- control and switch rooms
- electrical switchgear
- electrical protection
- generation power system isolation and restoration, including:
 - generation permit to work
 - lock out, tag out (LOTO)
 - authorisations
- generation power system testing, including:
 - electricity network voltages
 - commissioning
- safe use, care and storage of electrical instruments
- fault loop impedance, including:
 - term fault loop impedance of an alternating current (a.c.) power system
 - measuring fault loop impedance of typical circuits
 - procedures for testing fault loop impedance
- single phase systems
- multi-phase systems
- impedance in a.c. circuits
- documentation and reports, including:
 - work records
 - tests and commissions
 - incidents and unplanned events
 - periodic inspections
 - non-compliance and defects
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident.

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 conditions involving realistic and authentic activities that replicate operational 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:

- relevant and appropriate materials, tools, facilities, equipment and PPE currently used for maintaining, testing and verifying generation power systems, network apparatus and network electrical circuits in a very remote community
- applicable documentation, including workplace requirements, network construction standards, network supply standards, relevant 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=229bace1-b7bc-4653-9300-dffb13ecfad7>