



Australian Government

Assessment Requirements for UETDRSB007 Install and maintain substation direct current systems

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 4.0.

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 two (2) separate occasions 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) requirements
- identifying hazards, assessing risks, and identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- dealing with an unplanned event on at least one (1) occasion
- obtaining and signing on and off relevant work permits in accordance with workplace requirements
- completing relevant work records, reports and documentation
- installing and maintaining at least one (1) of the following types of batteries:
 - nickel cadmium
 - lead acid
 - gel cell
 - lithium ion
- installing and maintaining at least one (1) of the following battery systems:
 - main
 - communication
 - storage
- installing and maintaining battery chargers and direct current (d.c). control circuits
- performing at least two (2) of the following types of tests:
 - cell voltage test
 - hydrometer/specific gravity test
 - battery discharge and capacity tests
 - impedance testing.

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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including WHS/OHS requirements
- hazard, risk assessment and risk control requirements, including potential hazards
- types and application of PPE
- safe use of plant, tools and equipment
- application, purpose and types of permits
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- workplace records, reports and documentation
- operational manuals and system diagrams
- batteries, including:
 - types
 - characteristics
 - maintenance requirements
 - installation procedures
 - common defects and rectification
- battery stands and enclosures, including:
 - types
 - characteristics
 - maintenance requirements
 - installation procedures
 - common defects and rectification
 - access requirements
- charging systems, including:
 - types
 - characteristics
 - maintenance requirements
 - installation procedures
 - common defects and rectification
- substation d.c. systems, including:
 - protection
 - switching
 - monitoring
 - common panel layouts
 - uninterrupted power supply (UPS)
- specialised tools, including:

- types, construction and function
- calibration
- care and maintenance.

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, equipment and PPE currently used in industry
- applicable documentation, including workplace requirements, 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>