



Australian Government

Assessment Requirements for UETDRSB012 Maintain high voltage circuit breakers

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 relevant work permits in accordance with workplace requirements
- completing relevant work records, reports and documentation
- maintaining high voltage (HV) circuit breakers on at least two (2) of the following types:
 - bulk oil
 - minimum oil
 - air blast
 - air insulated
 - vacuum
 - air-insulated switchgear (AIS)
 - gas-insulated switchgear (GIS)
- maintaining at least two (2) of the following types of operating mechanisms:
 - spring
 - solenoid
 - hydraulic
 - pneumatic
- performing at least three (3) of the following tests:
 - insulation resistance
 - contact resistance
 - minimum close and open operations (reduced voltage tests)
 - sequence timing

- contact timing
- vibration
- gas pressure
- performing tests using at least two (2) of the following:
 - pressure measuring devices
 - gas measuring devices
 - oil sampling devices
- performing at least one (1) of the following tests:
 - gas sampling
 - oil sampling.

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
- evaluation of equipment serviceability
- identification and procurement of materials and apparatus
- gas systems
- specialised tools, including:
 - types, construction and function
 - calibration
 - care and maintenance
- low voltage (LV) switching principles, including:
 - use of manuals, and electrical and mechanical diagrams
 - types, characteristics and capabilities of electrical apparatus
 - source of back-feed
- HV switching principles, including:
 - use of manuals, and electrical and mechanical diagrams
 - types, characteristics and capabilities of electrical apparatus
 - identification of components and associated control housings
 - control equipment and auxiliary relays, flags and alarms

- remote and local operating principles and conventions
- maintenance safety switches and interlocks
- procedures for maintaining different types of HV circuit breakers, including:
 - circuit breaker operating principles
 - interrupter chambers
 - interpretation of faults
 - fault conditions and symptoms
 - protection systems
- procedures for maintaining different types of operating mechanisms, including:
 - capabilities
 - interpretation of faults
 - performing different types of maintenance tests.

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>