



Australian Government

Assessment Requirements for UETDRSB001 Perform substation switching operations to a given schedule

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 two 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)
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- establishing and maintaining communications with the following:
 - switching controller
 - permit holders
- obtaining approval to perform substation switching to a given schedule
- performing substation switching operations to a given schedule completing all of the following:
 - isolation
 - restoration
- using at least three (3) of the following specialist tools and equipment:
 - voltage detectors*
 - operating sticks
 - portable earths
 - phasing equipment
 - operating handles
 - (*must do)
- operating at least four (4) of the following electrical apparatus:
 - links
 - earth switches
 - air-break switches
 - circuit breakers
 - fuses
- operating the substation electrical equipment remotely via a panel/display

- dealing with an unplanned event on at least one (1) occasion
- organising, issuing, cancelling or relinquishing relevant work permits/approvals in accordance with workplace requirements
- 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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
- 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 work permits/approvals
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- substations, including:
 - types
 - layouts
 - bus bar configurations
 - types of electrical apparatus
 - types, function and operating characteristics of various switchgear
 - earthing systems
 - voltage regulation
- protection systems, including:
 - types, function and operating characteristics
 - protection equipment
 - interconnectors and possible sources of back-feed
- substation power supplies, including:
 - low voltage supply
 - batteries and battery charges
- substation switching principles, including:
 - manuals, system diagrams/plans and drawings
 - responsibilities of the switching operator
 - isolation, restoration, paralleling and transferring
 - earthing requirements and procedures
 - requirements and procedures of the operation of switchgear
 - safety requirements and procedures

- use and operation of specialised equipment and tools
- emergency/fault switching
- substation automation system, including:
 - supervisory control and data acquisition (SCADA) system security interlocks and access restrictions
 - function of the main components of a local/remote control system
 - operation procedure for switching from a local control station
 - functions of SCADA (or any other relevant data acquisition and control) systems and its main components
 - operation of a field devices using SCADA systems via a RAT, dial up annunciated system and local control station.

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 in industry performing substation switching operations to a given schedule
- applicable documentation, including workplace requirements, 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>