



Australian Government

Assessment Requirements for UETDRIS017

Perform high voltage field switching operation to a given schedule

Release: 3

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Modification History

Release 3. Unit application 'qualification' spelling corrected and numeral '(2)' added in Performance Evidence for clarification.

Release 2. Unit application updated for clarification.

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 (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)
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- verifying switching scheduling documents
- establishing and maintaining communications with the following:
 - switching controller
 - permit holders
 - other network stakeholders
- obtaining approval to perform high voltage (HV) field switching to a given schedule
- performing HV field switching operation to a given schedule completing at least two (2) of the following:
 - isolation
 - restoration
 - paralleling
- performing at least two (2) of the following tests:
 - proved de-energised*
 - voltage
 - phasing
 - (*must do)
- operating at least four (4) of the following HV electrical apparatus:
 - HV links/isolators/disconnectors

- air-break switches
- fuses
- ring main switch
- earth switches
- reclosers
- circuit breakers
- sectionalisers
- live line clamps
- load break elbows
- using at least two (2) of the following specialist tools and equipment:
 - HV phasing sticks
 - HV ground mounted equipment isolating handles
 - HV operating sticks
 - HV earths
- using tags and locks
- organising, issuing, cancelling or relinquishing relevant work permits/approvals 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:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including:
 - WHS/OHS
 - safe approach distances
- 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
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- types, characteristics and capabilities of specialised tools and testing equipment, including:
 - insulated equipment
- purpose, layout and application of switching schedules
- HV field switching principles and procedures, including:
 - roles and responsibilities
 - procedures for coordination of operations
 - isolation, restoration and paralleling

- proving de-energised
- earthing
- pre- and post-switching checks
- fault finding
- alternate sources of supply and possible back-feed
- primary causes, effects and types of HV electrical faults
- emergency fault procedures
- operation of HV switchgear
- HV feeder auto-reclosing suppression
- distribution protection systems, including:
 - types, operation and applications
 - protection equipment
- HV switchgear, including:
 - types and categories (including live line clamps)
 - application, function and operating capabilities
- application and function of the single wire earth return (SWER) system components, including:
 - circuit arrangement
 - principle of operation
 - hazards and procedures associated with faulty SWER earth systems
 - procedure to isolate, energise and commission SWER transformer
- operation of HV distribution transformers, including:
 - principles governing factors for transformer ratings
 - operating limitations and the relationship between transformer and HV fuse rating
 - purpose and principle operation of HV distribution transformer tap changers
 - paralleling requirements
- functions of supervisory control and data acquisition (SCADA) (or any other relevant data acquisition and control) systems and its main components
- function of the main components of a local/remote control system.

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 for perform HV field 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>