Australian Government

Assessment Requirements for UETTDRCJ27 Install and maintain de-energised high voltage underground polymeric cables

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.

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 work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- installing and maintaining the following:
  - high voltage (HV) polymeric cables
- performing at least two (2) of the following cable joints:
  - tee-off joints
  - straight through joint
  - parallel branch joint
  - parallel joint
- completing cable terminations on distribution network equipment on at least one (1) of the following:
  - transformers
  - ring main units
  - chamber substations
- using at least one (1) of the following terminating substation equipment:
  - busbar/termination boxes
  - links/fuses
  - termination boxes
  - control gear
  - circuit breakers
- using at least two (2) of the following:
  - resin filled boxes
  - compound filled boxes
  - polymeric tape
  - heat shrink
  - ‘slip-on’ moulds

    - pre-stretched polymeric
- using all of the following:
    - insulation resistance testers
    - voltage detectors
- using all of the following:
    - cable identification devices
    - cable spiking devices
- using at least two (2) of the following:
    - mechanical connectors
    - compression connectors
    - lugs
- dealing with unplanned events on at least one (1) occasion.

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:

- standards, codes, legislation, supply authority regulations and/or enterprise requirements pertaining to the jointing of HV underground polymeric cables
- requirements for the use of enterprise construction manuals, system diagrams/plans and drawings encompassing:
    - characteristics of different types of cables and components
    - purpose of stress control
- applications of various tools and equipment for HV jointing
- procedures for isolating HV underground cables encompassing:
    - method for proving safe to work
- earthing procedures
- techniques in jointing HV underground polymeric cable, encompassing:
    - short circuit cores and seal cable
    - straight through
    - trifurcating
- techniques in HV terminations encompassing:
    - pole top termination
    - substation/switchgear termination
    - ABC termination
    - telcon termination
- procedures for repairing HV underground cables encompassing:
    - location of faults
    - types of damage
    - techniques to repairs to sheath

- techniques to repairs to core.

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:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, facilities, equipment and personal protective equipment (PPE) currently used in industry for installing and maintaining de-energised HV underground polymeric cables
- applicable documentation, including workplace procedures, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

UET Training Package Companion Volume Implementation Guide is found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7