



Australian Government

Assessment Requirements for UETTDRCJ21 Lay ESI electrical cables

Release: 1

Assessment Requirements for UETTDRCJ21 Lay ESI electrical cables

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
- laying at least one (1) of the following:
 - high voltage (HV) polymeric
 - HV paper insulated
- laying at least one (1) of the following:
 - low voltage (LV) polymeric
 - LV paper insulated
- laying at least one (1) of the following:
 - direct lay
 - on racks
 - in conduits
- performing at least one (1) of the following cable pulling methods:
 - stocking pulling
 - bond pulling
 - armour pulling
 - nose pull attachments
- performing at least two (2) of the following cable sealing methods:
 - heat shrinkable
 - pre-stretched materials
 - tin/lead wiping
 - pre-moulded components
- using at least one (1) of the following cable cutting tools:
 - hydraulic cutters
 - electric reciprocating

- motorised
- hand tools
- using at least four (4) of the following:
 - drum jacks
 - winches
 - spindles
 - capstans
 - bollards
 - cable trailers
 - rollers
 - lubricants
 - ropes
 - bell mouths
 - draw wires/rods
- 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:

- requirements for the use of enterprise construction manuals, system diagrams/plans and drawings
- safety precautions specific to the installation of underground cables encompassing:
 - excavation and trench safety regulations
 - gas detection procedures
 - working in confined spaces
 - personal protective equipment (PPE)
 - hazards for the use of liquid petroleum gas (LPG) equipment for jointing of underground cables
 - gas bottle testing procedures
 - permit to work systems and isolation procedures
 - trench excavation and reinstatement procedures
 - confined space rescue, including:
 - planning and identifying rescue procedures
 - establishing rescue responses and techniques
 - involvement of external emergency services
 - emergency procedures for the rescue of an electric shock victim, including cardiopulmonary resuscitation (CPR)
- installation of underground cable procedures encompassing:
 - types of tools and equipment

- methods of cable handling encompassing:
 - direct laid cables
 - duct laid cables
 - solid laid cables
 - cables supported in cleats or hangers
 - corrosion protection
 - minimum bending radius of cables
- methods of cable sealing encompassing:
 - shorting of cables cores
 - core of unterminated cables
 - methods of protection from corrosion
 - polymeric sheathed cables sealing with mastic lined
 - heat shrink caps buried sealed ends
- methods of installing conduits
- procedures for the safe use of LPG equipment for cable jointing
- traffic management, including:
 - purpose of traffic management
 - responsibilities in accordance with relevant statutory requirements
 - electricity supply industry (ESI) requirements
 - procedure used to provide an effective traffic management scheme
 - use of a two-way radio
- procedures for purchasing/ordering items, removing/dispatching items, stocktaking and record keeping
- safety precautions specific to handling underground cables
- requirements for the use of enterprise manuals, system diagrams/plans and drawings
- types and applications of underground cables
- construction types and structures of underground cables
- characteristics of different types of underground cables
- ratings.

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 PPE currently used in industry for laying ESI electrical 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>