



Australian Government

UETTDRCJ31 Install and maintain polymeric specialised underground cables

Release: 1

UETTDRCJ31 Install and maintain polymeric specialised underground 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.

Application

This unit covers the installation, maintenance and repair of polymeric specialised underground cables, including cross-linked polyethylene (XLPE) and ethylene propylene rubber (EPR) above 33 kV. It includes jointing and terminating, as well as working under induced voltages and undertaking the relevant tests required for jointing. It also encompasses the preparation of the cable jointing bay, the preparation of cables and phasing out, cable identification and spiking, and the treatment/handling of, but not jointing fibre optical cables.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace subject to regulations for undertaking of electrical work.

Other conditions may apply under state and territory legislative and regulatory licencing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UEENEEE102A Fabricate, assemble and dismantle utilities industry components

UEENEEE104A Solve problems in d.c. circuits

UEENEEE105A Fix and secure electrotechnology equipment

UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

UEENEEG101A Solve problems in electromagnetic devices and related circuits

UEENEEG102A Solve problems in low voltage a.c. circuits

UETTDRCJ21 Lay ESI electrical cables

UETTDRCJ23 Install and maintain de-energised high voltage underground paper insulated cables

UETTDRCJ26 Install and maintain de-energised low voltage underground polymeric cables

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

UETTDRCJ99 Test and verify distribution cable jointing installations

UETTDREL11 Apply sustainable energy and environmental procedures

UETTDREL12 Operate plant and equipment near live electrical conductors and apparatus

UETTDREL16 Working safely near live electrical apparatus

UETTDRI41 Install network infrastructure electrical equipment

UETTDRI42 Maintain network infrastructure electrical equipment

UETTDRI55 Install and maintain low voltage underground services

Competency Field

Cable Jointing

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Prepare/plan to install and maintain polymeric specialised underground cables

- 1.1** Work schedules, including drawings, plans, requirements, established procedures and material lists, are obtained and analysed, as necessary, by site inspection and the extent of the preparation of the work determined for planning and coordination
- 1.2** Relevant requirements and established procedures for the work are communicated to all personnel and identified for all worksites
- 1.3** Hazards are identified, work health and safety (WHS)/occupational health and safety (OHS) risks assessed and control measures prioritised, implemented and monitored, including emergency exits kept clear, to ensure safe systems of work are followed and according to established procedures
- 1.4** Work is prioritised and sequenced for the most efficient and effective outcome following consultation with others for completion within acceptable timeframes, to a quality standard and in accordance with established

procedures

- 1.5 Risk control measures are identified, prioritised and evaluated against the work schedule
- 1.6 Relevant work permits are secured to coordinate the performance of work according to requirements and/or established procedures
- 1.7 Resources, including personnel, equipment, tools and personal protective equipment (PPE), required for the job are identified, scheduled and coordinated and confirmed safe and in technical working order
- 1.8 Clients/customers are provided with possible solutions and/or options within the scope, acceptable cost and requirements
- 1.9 Liaison and communication issues with others/authorised personnel, authorities, clients and land owners are resolved and activities coordinated to carry out work
- 1.10 Site is prepared according to the work schedule and to minimise risk and damage to property, commerce and individuals in accordance with established procedures
- 1.11 Personnel participating in the work, including plant operators and contractors, are fully briefed and respective responsibilities coordinated and authorised where applicable in accordance with established procedures
- 1.12 Positioning of road signs, barriers and warning devices is planned and coordinated in accordance with requirements

2 Carry out the installation and maintenance of polymeric specialised underground cables

- 2.1 WHS/OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are monitored and actioned in accordance with requirements and/or established procedures
- 2.2 First aid, rescue and other related work procedures are performed according to requirements and/or established procedures
- 2.3 Lifting, climbing, working in confined spaces and aloft, and use of power tools/equipment, techniques and

practices are safely exercised according to requirements

- 2.4 Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks are reported to immediate authorised personnel for directions according to established procedures
- 2.5 Remedial actions are taken to overcome any shortfalls encountered in the work schedule according to requirements and/or established procedures
- 2.6 Installation and/or maintenance of polymeric specialised underground cables is carried out in accordance with the work schedule and requirements and/or established procedures
- 2.7 Essential knowledge and associated skills are applied in the safe installation and/or maintenance of polymeric specialised underground cables to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements
- 2.8 Solutions to non-routine problems are identified and actioned using acquired essential knowledge and associated skills according to requirements
- 2.9 Ongoing checks of quality of the work are undertaken in accordance with requirements and established procedures to ensure a quality outcome is achieved for the client/customer and to a community/industry standard

3 Complete the installation and maintenance of polymeric specialised underground cables

- 3.1 Work undertaken is checked against work schedule for conformance with requirements, anomalies reported and solutions identified in accordance with established procedures
- 3.2 Accidents and/or injuries are reported in accordance with requirements/established procedures
- 3.3 Worksite is rehabilitated, cleaned up and confirmed safe in accordance with established procedures
- 3.4 Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures
- 3.5 Relevant work permits are signed off and underground cables are returned to service and advised to

client/customer in accordance with requirements

- 3.6** Work completion records, reports, as installed/modified drawings and/or documentation and information are confirmed, processed and appropriate personnel notified

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDRCJ31A Install and maintain polymeric specialised underground cables.

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>