



Australian Government

UETDRRT007 Maintain energised traction overhead electrical apparatus using stick techniques

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.

Application

This unit covers the maintenance and repair of energised traction overhead electrical apparatus via the use of approved live line insulated stick techniques.

It includes the verification of site conditions and the potential hazards, the conformance with and calculation of physical loads, the selection of appropriate tools and equipment, and authorised work methods. It encompasses the undertaking of correct procedures and precautions to working live line in accordance with the work plan and enterprise requirements.

It also includes the visual inspection and necessary checks to confirm that the electrical apparatus and components are in a safe condition to test and/or return to service, and the recommissioning tests of the electrical apparatus and components.

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

Pathway 1

Qualified and authorised Rail Traction Lineworker

Pathway 2

BSBLDR414 Lead team effectiveness

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
- UETDREL001 Apply environmental requirements
- UETDREL004 Operate plant and equipment in the vicinity of live electrical apparatus
- UETDREL005 Work safely in the vicinity of live electrical apparatus
- UETDRIS007 Install and maintain distribution overhead conductors and cables
- UETDRIS012 Install and maintain poles, structures and hardware
- UETDRRT001 Install overhead rail traction configurations
- UETDRRT002 Install overhead traction components and equipment
- UETDRRT003 Install rail traction bonds
- UETDRRT004 Install traction overhead wiring systems
- UETDRRT005 Maintain energised d.c. traction overhead wiring system
- UETDRRT008 Maintain overhead rail traction configurations
- UETDRRT009 Maintain overhead traction components and equipment
- UETDRRT011 Maintain traction overhead wiring systems
- UETDRRT012 Operate rail road height access plant near rail traction systems
- UETDRRT014 Test and verify rail traction installations
- UETTDRIS65 Contribute to coordinated HV live working

Competency Field

Rail Traction

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare/plan to maintain energised traction overhead electrical apparatus

PERFORMANCE CRITERIA

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

- 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** 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
- 1.3** Calculation of physical loads and authorised work methods are obtained and relevant requirements and established procedures for the work are communicated to all personnel and identified for all worksites
- 1.4** 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
- 1.5** Hazards associated with the work are identified and risk control measures implemented, including the rendering inoperative of automatic reclosing device
- 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** Relevant personnel at worksite are confirmed current in first aid, cardiopulmonary resuscitation (CPR), pole top and other rescue procedures according to requirements
- 1.9** Liaison and communication issues with others/ authorised personnel, authorities, clients and landowners 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 maintenance of energised traction overhead electrical apparatus**
- 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, CPR, pole top, other rescue procedures and other related work procedures are performed according to requirements and/or established procedures
- 2.3** Lifting, climbing, and working aloft, and use of power tools/equipment, techniques and practices are safely exercised according to requirements
- 2.4** Auto-reclose devices associated with the circuits being worked on are rendered inoperative and necessary work documentation acquired in accordance with enterprise requirements
- 2.5** Essential knowledge and associated skills are applied in the safe maintenance of energised traction overhead electrical apparatus to ensure completion within an agreed timeframe and to quality standards with a minimum of waste according to requirements
- 2.6** 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
- 2.7** Remedial actions are taken to overcome any shortfalls encountered in the work schedule according to requirements and/or established procedures
- 2.8** Unplanned events in the maintenance of energised traction overhead electrical apparatus are managed within the scope of established procedures
- 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 maintenance**
- 3.1** Work undertaken is checked against work schedule for

**of energised traction
overhead electrical
apparatus**

conformance with requirements, anomalies reported and solutions identified in accordance with established procedures

- 3.2 Accidents and/or injuries are reported and followed up 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 documentation is signed off and traction overhead electrical apparatus returned to service, including returning of auto-reclosing device to normal, and client/customer advised 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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETDRRT32 Maintain energised traction overhead electrical apparatus using stick techniques.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>