



Australian Government

UETDRRT001 Install overhead rail traction configurations

Release: 1

UETDRRT001 Install overhead rail traction configurations

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 involves the skills and knowledge required to install overhead rail traction configurations in the electricity supply industry (ESI).

It includes installation of overlaps, cross-overs, turnouts and crossing configurations by using safe working practices on or about the running line/track identifying and confirming road/rail management plans and electrical permits.

It includes inspecting and checking to confirm configurations have been correctly installed in accordance with design and is fit for service, updating installation data and relevant quality assurance documentation.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

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

UETDRRT002 Install overhead traction components and equipment

UETDRRT004 Install traction overhead wiring systems

Competency Field

Rail Traction

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for installation of overhead traction configurations

2 Perform installation of overhead traction configurations

PERFORMANCE CRITERIA

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

- | | |
|------------|---|
| 1.1 | Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are referred to and confirmed |
| 1.2 | Required design standards and construction plans are obtained |
| 1.3 | Plant, tools, equipment and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order |
| 1.4 | Hazards are identified, risks assessed and control measures identified and applied |
| 1.5 | Work is prioritised and sequenced for completion in accordance with workplace requirements |
| 1.6 | Work permits are organised in accordance with workplace requirements |
| 1.7 | Worksite, road or rail management plan is prepared in accordance with workplace requirements |
| 1.8 | Environmental constraints applicable to the work are identified and control measures applied |
| 2.1 | Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored |

- 2.2 Lifting, working at heights and the use of plant, tools, equipment and PPE are carried out in accordance with workplace requirements
- 2.3 Hazard control measures are monitored in accordance with workplace requirements
- 2.4 Work permits are instructed and issued and where appropriate signed in accordance with workplace requirements
- 2.5 Worksite, road or rail management plan is established in accordance with workplace requirements
- 2.6 Electrical equipment and associated hardware are positioned, secured and terminated/connected in accordance with job and workplace requirements
- 2.7 Overhead traction configurations are installed in agreed timeframes, to design standards and with a minimum of waste in accordance with workplace requirements
- 2.8 Profiling is checked in accordance with workplace requirements
- 2.9 Incidents or unplanned events are responded to in accordance with workplace requirements
- 2.10 Quality checks of work are undertaken in accordance with workplace requirements to ensure fit for service

3 Complete work and documentation

- 3.1 Completed work is checked against design standards, construction plans and drawings for compliance and anomalies reported in accordance with workplace requirements
- 3.2 Incidents or unplanned events are reported in accordance with workplace requirements
- 3.3 Worksite is rehabilitated, cleaned and made safe in accordance with workplace requirements
- 3.4 Plant, tools and equipment are cleaned, checked, and returned to storage in accordance with workplace requirements
- 3.5 Surplus materials are returned to storage or disposed of in accordance with workplace requirements

- 3.6 Work permits are completed and overhead traction configuration is fit for service in accordance with workplace requirements
- 3.7 Work records, reports and documentation are completed in accordance with workplace requirements

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 UETTDRT25 Install overhead rail traction configurations.

Links

Companion Volume Implementation Guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETDRRT001 Install overhead rail traction configurations

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.

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 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)
- installing at least three (3) of the following types of system configurations:
 - overlaps
 - cross-overs
 - turnout crossings
 - train/tram crossings
- operating from at least one (1) of the following types of mobile plant and height equipment:
 - elevated work platform (EWP)
 - ladder
 - mobile platform
- using equipment and tools required for installing overhead rail traction configurations, including:
 - cant gauge
 - height and stagger gauge
- 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
- 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 permits
- traction configuration design standards and construction plans, including:
 - types
 - purpose
 - assemblies
 - components
- installation of traction configurations, including:
 - installation methods
 - measurement of tolerances
 - recording of tolerances
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident.

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, plant and PPE currently used in industry for installing overhead rail traction configurations
- applicable documentation, including workplace requirements, relevant design standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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