



Australian Government

UETDRRT013 Perform rail traction switching operations to a given schedule

Release: 1

UETDRRT013 Perform rail traction switching operations to a given schedule

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 perform rail traction switching operations to a given schedule in the electricity supply industry (ESI).

It also includes procedures for communicating with the electrical control officer/system, isolating electrical equipment, proving the area is de-energised and earthed or rail-connected, issuing and cancelling/relinquishing of electrical permits and returning affected sections to service.

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

UETDRRT001 Install overhead rail traction configurations

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 rail traction switching operations to a given schedule

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** Operational/switching schedules are obtained and confirmed with stakeholders, as required
- 1.3** Alterations to the schedules which may be required after assessing the worksite is communicated to stakeholders for formal approval
- 1.4** Tools, equipment and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order
- 1.5** Hazards are identified, risks assessed and control measures identified and applied
- 1.6** Work is prioritised and sequenced for completion in accordance with schedule and workplace requirements
- 1.7** Work permits are organised in accordance with workplace requirements
- 1.8** Worksite, road or rail management plan is prepared in accordance with workplace requirements
- 1.9** Personnel participating in work are fully briefed and responsibilities confirmed in accordance with workplace requirements

2 Carry out rail traction switching operations to a

- 2.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to

given schedule	be performed are applied and monitored
2.2	The use of 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	Communications with electrical control officer are established and maintained during switching operation in accordance with workplace requirements
2.5	Rail traction switching operations are completed in agreed timeframes in accordance with workplace requirements
2.6	Electrical equipment and associated sections for the worksite are isolated and proven de-energised using appropriate testing devices and earthed or rail connected, where required, in accordance with schedule and workplace requirements
2.7	Work permits are instructed and issued, and signed in accordance with workplace requirements
2.8	Incidents or unplanned events are responded to in accordance with workplace requirements
2.9	Work permits are cancelled or relinquished in accordance with workplace requirements
2.10	Electrical equipment and associated sections for the worksite are returned to service in accordance with schedule and workplace requirements
3 Conclude rail traction switching operations to a given schedule	3.1 Incidents or unplanned events are reported in accordance with workplace requirements
	3.2 Worksite is rehabilitated, cleaned and made safe in accordance with workplace requirements
	3.3 Tools and equipment are cleaned, checked and returned to storage in accordance with workplace requirements
	3.4 Work records, reports and documentation are completed and processed 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 UETTDRRT30 Perform to a given schedule rail traction switching operations.

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 UETDRRT013 Perform rail traction switching operations to a given schedule

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)
- using and verifying switching scheduling documents
- using appropriate communication with the following:
 - electrical control officer
 - permit holders
 - other network stakeholders
- performing at least one (1) of the following types of rail traction switching operations to a given schedule:
 - high voltage (HV)/low voltage (LV) circuit breakers
 - HV/LV switches
 - HV/LV isolators
 - HV/LV links
 - HV/LV bridges
 - HV/LV fuses
- using at least one (1) of the following types of testing equipment whilst performing overhead traction switching:
 - voltage detectors
 - field intensity meter
 - polarity testers
 - phase rotation indicators
- using all of the following:
 - portable earthing/rail-connecting equipment
 - operating rods/sticks

- completing all of the following stages of electrical permits:
 - writing
 - issuing
 - cancelling or relinquishing
- 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 tools and equipment
- standards, codes, legislation, supply authority regulations and workplace requirements applicable to:
 - switching schedules
 - electrical operating diagrams
 - permits
 - communication procedures
 - PPE required for switching
 - danger tag or lockout procedures
- types of rail traction operation switches
- types of testing equipment for overhead traction switching
- portable earthing/rail-connecting equipment
- operating rods/sticks
- 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 and PPE currently used in industry for performing rail traction switching operations to a given schedule
- applicable documentation, including workplace requirements, switching schedules, electrical operating diagrams, permits, equipment specifications, regulations, codes of practice and operation manuals.

Links

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