



Australian Government

Assessment Requirements for UETDRRT009 Maintain overhead traction components and equipment

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.

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)
- maintaining at least two (2) of the following types of equipment:
 - fuse switches
 - dropout fuses
 - section insulators
 - neutral sections
 - switches/isolators
 - links
 - fuses
 - surge diverters
 - transformers
- maintaining at least five (5) of the following types of components:
 - cantilever hardware
 - insulators
 - head span
 - pull-offs
 - push-offs
 - registration fittings
 - steady span
 - tension regulators
 - cross spans
 - tramway support network

- pendulum
- rigid rail conductor
- maintaining at least two (2) of the following types of fittings:
 - preformed fittings
 - compression fittings
 - wedge fittings
 - bolted splices
 - fork collar sockets
 - conical splices
- maintaining at least three (3) of the following types of connecting components:
 - feeders (drops, cross track)
 - dissimilar conductors
 - lugs
 - bolted clamp
 - drapes/potential jumper
 - droppers
- using at least two (2) of the following required for maintaining overhead traction components and equipment:
 - voltage detectors
 - micrometer/gauge
 - tension wrench
 - dynamometer
 - specialised tools
- 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
- overhead traction components and equipment maintenance documents
- types and purpose of overhead traction equipment, including:
 - switches/isolators

- fuse switches
- dropout fuses
- links
- section insulators
- neutral sections
- surge diverters
- transformers
- fuses
- types and purpose of overhead components, including:
 - cantilever hardware
 - droppers
 - span or bay components
 - portal hardware
 - head span hardware
 - section insulators
 - neutral sections
 - registration fittings
 - steady span
 - tension regulators
 - cross spans
 - low clearance components
- types of conductors used for overhead wiring, including:
 - copper hard-drawn
 - copper cadmium
 - copper tin-bearing
 - aluminium
 - steel
 - other alloyed conductors
 - rigid rail conductor
- types of traction wire support structures, including:
 - portals
 - cantilevers
 - twin track cantilevers
 - drop vertical
 - head spans
 - cross spans
 - pull-offs
 - push-offs
- types and purpose of ancillary equipment, including:

- surge arresters
- booster
- auxiliary transformers
- methods for replacing conductors, including the use of:
 - preformed fittings
 - compression fittings
 - wedged fittings
 - bolted splices
 - lugs
 - bolted clamps
 - fork collar sockets
 - conical splices
- methods for replacing components, including:
 - feeders (drops, cross track)
 - droppers
 - dissimilar conductors
 - jumpers
 - surge arresters
- use of plant and equipment for maintenance work, including:
 - elevated work platforms (EWPs)
 - ladders
 - works trains
 - rail-mounted overhead wiring equipment/vehicles
 - road/rail height access machinery/vehicles
 - voltage detectors
 - micrometer/gauges
 - tension wrenches
 - dynamometers
 - other specialised tools
- maintenance of overhead traction equipment and components, including:
 - maintenance/repair procedures
 - inspection and recording procedures
- diagnosis and correction of simple faults in specific overhead traction equipment and components, including:
 - types and causes
 - determination of appropriate corrective actions
- 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, plant, equipment and PPE currently used in industry maintaining overhead traction components and equipment
- applicable documentation, including workplace requirements, maintenance documents, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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