



Australian Government

Assessment Requirements for UETTD RRT37 Maintain traction network equipment and components

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.

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 work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- maintaining ancillary equipment including at least two (2) of the following:
 - fuse switches
 - dropout fuses
 - section insulators
 - switches/isolators
 - links
 - fuses
 - surge diverters
 - transformers
- maintaining traction wire support structures including at least five (5) of the following:
 - cantilever hardware
 - head span
 - neutral sections
 - pull offs
 - registration fittings
 - steady span
 - tension regulators
 - cross spans
 - tramway support network
 - pendulum
- using termination materials including at least two (2) of the following:
 - preformed fittings
 - compression fittings

- wedge fittings
- bolted splices
- using traction system components including at least three (3) of the following:
 - feeders
 - dissimilar conductors
 - lugs
 - bolted clamp
 - drapes/potential jumper
 - droppers
- using tools and equipment including at least two (2) of the following:
 - voltage detectors
 - micrometer/gauge
 - tension wrench
 - dynamometer
 - specialised tools
- dealing with unplanned events on at least one (1) occasion.

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:

- overhead traction equipment encompassing:
 - types - switches/isolators, fuse switches, links, section insulators and fuses
 - purpose
- types of overhead traction components encompassing:
 - types - cantilever hardware, droppers, bay components, portal hardware, head span hardware, section insulators, neutral sections, registration fittings, steady span, tension regulators and cross spans
 - purposes
- types of conductors used for overhead wiring encompassing:
 - hard-drawn; computer-aided drafting (CAD); and tin-bearing copper, aluminium, steel and other alloyed conductors
- types of traction wire support structures encompassing:
 - portals, cantilevers, drop pieces, head spans, cross spans and pull-offs
- ancillary equipment encompassing:
 - types - surge arresters, booster and auxiliary transformers
 - purpose
- methods for replacing conductors encompassing:
 - preformed fittings
 - compression fittings

- wedged fittings
- bolted splices
- lugs
- bolted clamps
- methods for replacing components encompassing:
 - feeders
 - droppers
 - dissimilar conductors
 - jumpers
 - surge arresters
- use of plant and equipment for maintenance work encompassing:
 - elevated work platforms (EWP)
 - 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.

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:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

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>