



Australian Government

**Assessment Requirements for
UETDRDU020 Joint, terminate and
maintain gas and oil filled underground
cables**

Release: 1

Assessment Requirements for UETDRDU020 Joint, terminate and maintain gas and oil filled underground cables

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 4.0.

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 one (1) occasion and include:

- applying relevant legislation, regulations, standards, codes of practice and workplace requirements, including:
 - work health and safety (WHS)/occupational health and safety (OHS)
- obtaining, inspecting and using relevant personal protective equipment (PPE)
- obtaining and signing relevant work permits in accordance with workplace requirements
- identifying hazards, assessing risks, identifying, applying and monitoring control measures
- maintaining the following 33 kilovolt (kV) and above, pressurised cable types:
 - oil filled cables
 - gas filled cables
- performing at least two (2) of the following jointing methods:
 - straight through joint
 - straight stop joint
 - trifurcating joint
 - splitter joint
 - trifurcating/transition/stop
- performing at least two (2) of the following termination methods:
 - oil pressurised outdoor sealing end
 - gas impregnated switchgear (GIS) termination
 - gas filled termination
 - compound filled termination
- performing one (1) pressured plumbing connection
- performing at least two (2) of the following connections and techniques:
 - welded connectors
 - sweated connectors
 - compression connectors
- using specialist testing devices including:

- voltage detectors
- cable identification equipment and spiking
- insulation resistance testers
- testing cable for residual gases
- using the following equipment and materials:
 - leak repair and pressure control cable freezing equipment
 - pressure control tapes
 - fittings and seals
- undertaking preparation for cable freezing, preliminary pressure control, and leak repair activities
- using the following cable terminating materials:
 - paper tape
 - paper rolls.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy 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 requirements
- 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
- gas and oil filled underground cable principles, including:
 - types of oil or gas filled underground cables - properties of paper insulation, oil and nitrogen gas, construction, reasons for gas and/or oil filled, characteristics and capabilities of the cable, and pressure/volume characteristics of gas and oil
 - precautions when handling
 - types and functions of tools and equipment used on oil or gas filled underground cables
 - techniques when handling, topping, storing and disposing of oil or gas filled underground cables
- maintaining oil or gas filled underground cables including:
 - types, function and serviceability of tools and equipment used for the maintenance of oil or gas filled underground cables
 - techniques in the safe maintenance of oil or gas filled underground cables
 - techniques in the safe testing/inspection of the oil or gas filled underground cables
- jointing and terminating oil or gas filled underground cables including:
 - types, function and serviceability of tools and equipment used for the jointing and terminating of oil or gas filled underground cables
 - techniques in the safe jointing and terminating oil or gas filled underground cables

- techniques in the safe testing of the oil or gas filled underground cables
- gas and oil pressurised systems including:
 - types, characteristics and capabilities of pressurised systems
 - types and functions of specialised tools
 - techniques when testing, inspecting, handling, storing and disposing of pressurised systems
 - techniques in the safe maintenance of pressurised systems
 - techniques in the safe use of tools and equipment
 - techniques in determining route profiles and access locations.

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, equipment and PPE currently used in industry
- applicable documentation, including workplace requirements, relevant industry standards, 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>