



Australian Government

**Assessment Requirements for
UETDRDU003 Install and maintain gas and
oil pressure systems for specialised
underground cables**

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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 work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- installing and maintaining oil and gas filled pressure systems
- using all of the following oil and gas processing and control equipment:
 - gas analyser/detector
 - cable freezing equipment
 - accessory impregnation equipment
 - oil degasification plant
 - manometers
 - flow boards
 - vacuum pumps
 - site bottles
 - gas cylinders
 - liquid nitrogen cylinders
 - pressure/vacuum meters
 - oil evacuation pumps
 - oil and gas piping equipment
 - oil sampling equipment
- using all of the following gas processing and control equipment:
 - gas control cubicles
 - oil control cubicles
 - oil degasification units
 - oil pressure tanks
- undertaking jointing and terminating of oil or gas filled specialised underground cables
- 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:

- oil or gas filled specialised underground cables encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements pertaining to the working with oil or gas filled specialised underground cables
 - types of oil or gas filled specialised underground cables - properties of paper insulation, oil and nitrogen gas, construction, reasons for gas and/or oil filled, characteristics and capabilities of the cable, pressure/volume characteristics of oil and gas, and precautions when handling
 - types and functions of tools and equipment used on oil or gas filled specialised underground cables
 - techniques when handling, storing and disposing of oil or gas filled specialised underground cables
- installation of oil or gas filled specialised underground cables encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements pertaining to the installation of oil or gas filled specialised underground cables
 - safety precautions of working with oil or gas filled specialised underground cables - safe operation procedures; WHS/OHS hazards and precautions; dangers of working in confined spaces; identification of WHS/OHS hazards; assessing and controlling risks; types, selection, maintenance, storage and uses of personnel protective equipment (PPE), including intrinsically safe equipment for use in confined and hazardous environments; permit/authorisation to work systems and isolation procedures; safe working policies, procedures and practices when using/operating specialised equipment; and emergency response and rescue, including first aid
 - types, function and serviceability of tools and equipment used for the installation of oil or gas filled specialised underground cables
 - techniques in the safe installation of oil or gas filled specialised underground cables
 - techniques in the safe testing/inspection of the oil or gas filled specialised underground cables to ensure successful installation has occurred
- jointing and termination of oil or gas filled specialised underground cables encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements pertaining to working with oil or gas filled specialised underground cables
 - safety precautions of working with oil or gas filled specialised underground cables - safe operation procedures; WHS/OHS hazards and precautions; dangers of working in confined spaces; identification of WHS/OHS hazards; assessing and controlling risks; types, selection, maintenance, storage and uses of PPE, including intrinsically safe equipment for use in confined and hazardous environments; permit/authorisation to work systems and isolation procedures; safe working policies, procedures and practices when using/operating specialised equipment; and emergency response and rescue, including first aid
 - types, function and serviceability of tools and equipment used for the jointing and terminating of oil or gas filled specialised underground cables

- techniques in the safe jointing and terminating oil or gas filled specialised underground cables
- techniques in the safe testing of the oil or gas filled specialised underground cables to ensure successful jointing and/or termination has occurred
- maintenance of oil or gas filled specialised underground cables encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements pertaining to the maintenance of oil or gas filled specialised underground cables
 - safety precautions of working with oil or gas filled specialised underground cables - safe operation procedures; WHS/OHS hazards and precautions; dangers of working in confined spaces; identification of WHS/OHS hazards; assessing and controlling risks; types, selection, maintenance, storage and uses of PPE, including intrinsically safe equipment for use in confined and hazardous environments; permit/authorisation to work systems and isolation procedures; safe working policies, procedures and practices when using/operating specialised equipment; and emergency response and rescue, including first aid
 - safe storage and disposal of oil or gas filled specialised underground cables and associated equipment and components
 - types, function and serviceability of tools and equipment used for the maintenance of oil or gas filled specialised underground cables
 - techniques in the safe maintenance of oil or gas filled specialised underground cables
 - techniques in the safe testing/inspection of the oil or gas filled specialised underground cables to ensure successful maintenance has occurred
- oil and gas pressurised systems for specialised underground cables encompassing:
 - legislation, standards, codes, supply authority regulations and/or enterprise requirements pertaining to the installation and maintenance of oil and gas pressurised systems
 - safe storage and disposal of oil or gas pressurised equipment and associated components
 - requirements for the use of manuals, system diagrams/plans, drawings, charts and layouts
 - characteristics, application and care of hand and specialised tools
 - techniques in determining route profiles and access locations
 - pressure system characteristics for oil filled and gas filled cables
 - techniques in the safe installation of oil and gas pressurised systems
 - techniques in the safe maintenance of oil and gas pressurised systems
 - techniques in the safe use of tools and equipment in the process of installation and maintenance of oil and gas pressurised systems - gas analyser/detector, manometers, flow boards, cable freezing equipment, accessory impregnation equipment, oil degasification plant, manometers, flow boards, vacuum pumps, site bottles, gas cylinders, pressure/vacuum meters, oil evacuation pumps, Residual Gas Pressure (RGP) equipment, oil sampling equipment, gas control cubicles, oil control cubicles, cable joints and terminations, oil degasification units and oil pressure tanks
- enterprise-specific policies and procedure instructions encompassing:
 - responsibilities and duty of care of employer and employee relationship
 - methods of obtaining the up-to-date information on enterprise policies and procedures
 - rules and regulations

- induction into workplace - location of work area and storage area, timetable, uniform, personal wellbeing, housekeeping rules, emergency procedures and evacuation procedures
- techniques when dealing with others - working in teams, customer relations, and complaint and issues procedures
- overview of enterprise professional development - fire-fighting procedures, fatigue management, training and competency development - understanding and promotion
- enterprise-specific WHS/OHS instructions encompassing:
 - standards, codes, legislation, supply authority regulations and specific enterprise regulations pertaining to WHS/OHS policies and procedures
 - methods of obtaining the up-to-date information on enterprise WHS/OHS policies and procedures
 - specific enterprise PPE - type and application; where and when to be used; method of replacement; responsibility of maintenance, including cleaning, inspection and testing; and emergency response, rescue, evacuation and first aid procedures
 - personal wellbeing – hygiene, fatigue/stress management and drugs/alcohol
 - WHS/OHS training - induction training, specific hazard training, specific task or equipment training, emergency and evacuation training, and training as part of broader programs, such as equipment operation
 - WHS/OHS records - audits; inspection reports; workplace health and environmental monitoring records; training and instruction records; manufacturer and supplier information, such as material safety data sheets (MSDS); registers; maintenance reports; workers compensation and rehabilitation records; and first aid/medical records
- enterprise-specific technical drawing and documents encompassing:
 - types and application of enterprise-specific drawings and documents - electrical and electronic drawings, mechanical drawings, project charts, schedules, graphs, technical manuals and catalogues
 - instructions/worksheets - types and application of enterprise-specific symbols and diagrams
 - title box - description of parts and version control.

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, facilities, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, 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>