



Australian Government

UETTDREL18 Inspect and treat poles and inspect electrical apparatus

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.

Application

This unit involves the skills and knowledge required to inspect and treat poles and inspect electrical apparatus in the electricity supply industry (ESI).

It includes testing or examining at eye level to below ground and visually checking above ground of cross-arms, conductors, hardware and equipment attached with the use of the un-aided eye, binoculars and electronic vision equipment to determine the integrity of the poles, structures and hardware attached to them. It also includes completing inspection reports and updating of records to workplace requirements.

This unit would be applied by asset inspectors engaged in regular and methodical inspection and treatment poles and inspection of electrical apparatus in the transmission and distribution industry sector.

The application of the skills and knowledge described in this unit may require a licence to practice in the workplace.

Other conditions may apply under state and territory legislative and regulatory licencing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Common Unit Group

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

UETTDREL13 Comply with sustainability, environmental and incidental response policies and procedures

UETTDREL14 Working safely near live electrical apparatus as a non-electrical worker

Competency Field

Entry Level Cross Discipline

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to inspect and treat poles and inspect electrical apparatus

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Relevant work instructions are received and confirmed
- 1.2** Job requirements are discussed with relevant personnel and performed in accordance with workplace procedures
- 1.3** Work health and safety (WHS)/occupational health and safety (OHS) and environmental workplace procedures are received and confirmed
- 1.4** Work is prioritised and sequenced following consultation with relevant personnel for completion within acceptable timeframes and in accordance with workplace procedures
- 1.5** Hazards are identified, WHS/OHS risks assessed and control measures identified in accordance with workplace procedures
- 1.6** Relevant work permits are obtained, as required, to access and perform work in accordance with job requirements and/or workplace procedures
- 1.7** Resources, including equipment, tools and personal protective equipment (PPE), required for the job are obtained and confirmed in working order in accordance with workplace procedures
- 1.8** Relevant person responsible for first aid and/or related work safety procedures at the worksite are confirmed in accordance with workplace procedures to ensure safety measures are followed in the instance of an incident
- 1.9** Liaison and communication issues with appropriate personnel, authorities, clients and land owners are resolved to perform work, as required

- 1.10** Worksite is prepared to minimise risk, damage to property, commerce and individuals in accordance with workplace procedures
 - 1.11** Personnel participating in work are fully briefed and responsibilities confirmed in accordance with workplace procedures
 - 1.12** Traffic management is checked as implemented in accordance with workplace procedures
- 2 Conduct inspection and treatment of poles and inspect electrical apparatus**
 - 2.1** WHS/OHS, sustainable energy and environmental principles and practices are monitored and followed to reduce incidents of accidents in accordance with workplace procedures
 - 2.2** Tools and equipment are selected appropriate to the task in accordance with job requirements and used to produce desired outcomes
 - 2.3** Requirements for lifting, climbing, working at heights and the use of power tools/equipment are followed in accordance with workplace procedures
 - 2.4** Poles and electrical apparatus are inspected and safe treatment of poles and structures are completed in agreed timeframes, to quality standards and with minimum waste in accordance with workplace procedures
 - 2.5** Hazard warnings and safety signs are recognised, hazards identified and WHS/OHS risks reported to immediate appropriate personnel for directions in accordance with workplace procedures
 - 2.6** Visual inspection of poles, overhead structures, conductors, cables and electrical apparatus used on poles/structures is performed in accordance with work schedule and workplace procedures
 - 2.7** Poles/structures are tested or examined from approximately eye level to below ground in accordance with workplace procedures
 - 2.8** Visual checks are performed to identify fungal activity, dry rot, termite and borer infestation in accordance with workplace procedures, as required
 - 2.9** Treatment of poles/structures is performed in

- accordance with work schedule, job requirements and workplace procedures
- 2.10** Defective or suspect poles are identified in accordance with workplace procedures
 - 2.11** Unplanned events are referred to relevant authorised person/s for directions in accordance with workplace procedures
 - 2.12** Known solutions to a variety of problems are applied using acquired knowledge and associated skills
 - 2.13** Quality checks of work are undertaken in accordance with industry standards and workplace procedures
- 3 Complete the inspection and treatment of poles and inspect electrical apparatus**
- 3.1** Completed work is checked against work schedule, construction plans and drawings for compliance and anomalies are reported in accordance with workplace procedures
 - 3.2** WHS/OHS and environmental incidents are reported in accordance with workplace procedures, as required
 - 3.3** Worksite is cleaned and confirmed safe in accordance with workplace procedures
 - 3.4** Tools and surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with workplace procedures
 - 3.5** Unsafe or faulty tools are identified and marked for repair in accordance with workplace procedures before, during and after use
 - 3.6** Relevant work permits are signed off and poles and structures are returned to service in accordance with workplace procedures
 - 3.7** Work records, reports and/or documentation are completed in accordance with workplace procedures

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UETTDREL18A Inspect and treat poles and inspect electrical apparatus.

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>

Assessment Requirements for UETTDREL18 Inspect and treat poles and inspect electrical apparatus

Modification History

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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
- inspecting and testing at least four (4) of the following:
 - wood
 - steel
 - concrete
 - composite
 - reinforced poles
- conducting all the following:
 - drill test
 - non-intrusive test
- undertaking all the following activities:
 - chemical treatment
 - reinforcement (remove)
 - fit a sleeve to stays/guys
- inspecting all the following:
 - poles and structures
 - overhead conductors/cables
 - underground/overhead transition points
 - electrical equipment
 - hardware
 - earthing systems
- completing inspection reports and updating records for all of the following:
 - poles and structures
 - overhead conductors/cables
 - underground/overhead transition points

- electrical equipment
- hardware
- earthing systems
- using at least two (2) of the following:
 - un-aided eye
 - binoculars
 - electronic data capture using infra-red and/or digital video camera and/or computer
 - sonic tester
 - drill
- 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:

- poles and of electrical apparatus inspection safety requirements, including:
 - working safely with machinery and equipment near live electrical apparatus
 - working safely on or around electrical equipment through the application of risk management principles and control measures
 - selecting and using appropriate personal protective equipment (PPE)
 - implementing emergency procedures for the rescue of an electric shock victim
 - providing emergency first aid for an electric shock victim
 - safe handling and use of chemical treatments
 - visual checking and treatment of poles and structures
 - inspecting of overhead structures and electrical apparatus used on poles and/or structures
 - documenting inspection findings in accordance with enterprise requirements
- inspection of poles and electrical apparatus/equipment, including:
 - standards, codes, legislation, supply authority regulations and/or enterprise requirements
 - characteristics of wood used for structures within the electrical distribution system - relationship between timber and water, faults that occur that influence the integrity of the structure, effects and types of fungal activity, effects of termite and borer activity, and effects of rot
 - deterioration prevention techniques - relationship between steel, concrete and wood; inspection procedures for deterioration; deterioration prevention procedures in steel, concrete and wood; and procedures for the repair of deterioration in steel, concrete and wood
 - ground line inspection procedures of electrical distribution structures - requirements for pole inspection on electrical distribution structures, use of specific equipment and testing devices during testing/inspection, and methods of recording data
 - overhead line inspection procedures of electrical distribution structures - methods and requirements for overhead inspection on electrical distribution structures, including cables, conductors and apparatus; clearances for overhead conductors; cables and

structures; use of specific equipment and testing devices during testing/inspection; and methods of recording data.

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 PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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