Australian Government

Assessment Requirements for UETDRTO002 Erect power systems transmission structures

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 work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- applying sustainable energy principles and practices
- erecting at least one (1) of the following transmission structure types:
  - pyramid
  - delta
  - pi
  - enterprise-specific types
- installing at least one (1) of the following foundation types:
  - mass concrete
  - caisson or pile-based
  - screw-anchor
  - bored
- using at least one (1) of the following methods of erecting a transmission structure:
  - crane
  - gin pole
- 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:

- hand tools and their use encompassing:
  - hand tools for cutting, shaping, drilling, threading, tapping and finishing metallic and non-metallic components - types of tools and their purpose, techniques for the correct and safe use of these tools, hazards associated with their use, and care and maintenance of hand tools

    - tools for measuring and marking out - types of tools and their purpose, techniques for the correct and safe use of these tools, hazards associated with their use, and care and maintenance of hand tools
    - tools for dismantling and assembling electrical and electronic components - types of tools and their purpose, techniques for the correct and safe use of these tools, hazards associated with their use, and care and maintenance of hand tools
- fixed and portable tools and their use encompassing:
    - fixed power tools for cutting, shaping, drilling and finishing metallic and non-metallic components - types of tools and their purpose, techniques for the correct and safe use of these tools, hazards associated with their use, and care and maintenance of fixed power tools
    - portable power tools for cutting, shaping, drilling and structural components - types of tools and their purpose, techniques for the correct and safe use of these tools, hazards associated with their use, care and maintenance of fixed power tools, and requirements for use on construction sites
- materials properties encompassing:
    - identification and classification of engineering materials material properties
    - types and applications - properties of tensile strength; effects of temperature on the expansion of metals; ductility, malleability, work hardening and annealing; and the conditions that lead to corrosion and the properties of timbers
- transmission structures and hardware encompassing:
    - requirements for the use of enterprise construction manuals, system diagrams/plans and drawings
    - types of structures
    - types and function of associated hardware/equipment and insulators
    - types of conductors
    - location of transmissions structures
    - other equipment used on transmission structures, e.g., aircraft warning devices
    - voltages on transmission structures
- enterprise-specific technical drawings 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, equipment and personal protective equipment currently (PPE) used in industry to erect power systems transmission structures
- applicable documentation, including workplace procedures, 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