



Australian Government

Assessment Requirements for UEEEL0054 Maintain operation of electrical mining equipment and systems

Release: 2

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Modification History

Release 2. Minor change. Typographic error in prerequisites corrected.

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology 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, performance criteria and range of conditions on at least two separate occasions and include:

- applying methodical fault-finding techniques
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- applying sustainable energy principles and practices
- completing and reporting maintaining operation of electrical mining equipment
- completing workplace documentation correctly
- dealing with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- determining scope of work from fault/breakdown reports and discussion with appropriate person/s
- finding faults efficiently in accordance with workplace procedures and manufacturer specifications
- implementing WHS/OHS workplace procedures and practices
- maintaining operation of electrical mining equipment
- planning to maintain operation of electrical mining equipment
- rectifying faults effectively in accordance with workplace procedures and manufacturer specifications.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- electrical apparatus, including:
 - switchboards/distribution boards
 - protective devices such as circuit breakers

- earth leakage devices
- control equipment
- socket outlets
- electric vehicles
- motor starters and associated control devices
- electrical circuits, including:
 - supplying fix equipment
 - lighting
 - motors
 - socket outlets
 - trailing cable
 - within electric vehicles
- electrical control and protection in mines, including:
 - types of protection
 - operation of protection devices and systems
 - prospective fault currents
 - discrimination
- electrical mining systems, including:
 - earthing
 - mine reticulation
 - substations
 - switchgear
 - transmission lines
- environmental monitoring and control, including:
 - basic principles
 - control methods
 - types and application of sensors
- equipment monitoring methods
- fire detection, warning and control systems
- handling, storage and testing of mining cables
- operation and safety of mining equipment, including:
 - battery charging
 - battery-operated vehicles
 - conveyors
 - mine winder and package systems
 - ore extraction machinery
 - shuttle cars
 - ventilation fans
- relevant industry technical standards, regulations and codes for mining, including:
 - certified/approved electrical equipment

- codes applicable to electrical safe working practices
- installation arrangements
- installation of electrical equipment
- protection for safety
- regulations governing mining and related activities
- standards mandated under regulation or by an authority, deemed-to-comply standard and local service requirements
- testing and verification
- relevant job safety assessments or risk mitigation processes
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation, including:
 - component faults reports
 - inspection and test results
 - authorisations and permits
 - parts/component despatch and stores records
- relevant workplace policies and procedures
- sustainable energy principles and practices.

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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable simulated workplace operational situations that replicate 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 personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, relevant industry standards, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

