



Australian Government

Assessment Requirements for UEEHA0036 Test reeling, trailing and flexible cables and their attachments used in coal mining

Release: 1

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Modification History

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

- preparing to test damaged cable including:
 - reviewing safe work methods
 - reviewing repair history and test records of cable to be repaired
 - obtaining equipment and testing devices and checking them for safe operation and currency of calibration certification
- determining the extent of cable repairs including:
 - confirming and accepting safe work methods
 - inspecting and testing damaged cables using fault finding procedures
 - using inspection and test results together with cable repair history in determining the viability or extent of repair required
 - documenting the viability of repair and repair instruction from fault finding and forwarding to responsible personnel
- testing repaired cable including:
 - confirming and accepting safe work methods
 - setting up testing devices and taking and recording each test reading accurately
 - documenting actions to be taken to rectify non-complying parameters shown by test results and forwarded to the responsible personnel
 - following safe work methods for the care and storage of test equipment
- updating cable repair history record and notifying the responsible supervisor on the completion of the work.

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:

- nature of electricity and electrical circuits including:
 - electrical current and charge

- sources of electricity
- effects of current
- single-source single-load circuits covering:
 - components that make up the circuit
 - the relationship between voltage and current
 - consequences of a short-circuit and an open-circuit
- electrical properties of material including:
 - insulating materials including:
 - insulating properties
 - types and applications of insulation in cable technology
 - conducting materials including:
 - conducting properties
 - factor affecting resistance
 - types and applications of conducting materials in cable technology
 - semiconducting materials including:
 - semiconducting properties
 - types and applications in cable technology
- electrical parameters of cables and electrical measurement including:
 - testing devices including:
 - devices used for testing cables
 - care and handling
 - requirement of measuring instruments to have current calibration certification
 - cable tests including:
 - continuity test
 - phase rotation test
 - insulation resistance test
 - high-voltage proof test
 - partial break test
 - symmetrical load test
 - sheath test
- testing electrical parameters of cables and cable assemblies including:
 - causes of inaccuracies and overcoming them
 - test device set up and safety procedures
 - interpreting test readings
 - test results that show a cable complies with standard requirements.

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 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 tools and testing devices and PPE currently used in industry
- safe work method documentation
- resources relevant to the cable repairs undertaken and required to be a recognised cable repair workshop to the scope of AS/NZS 1747 with ISO 9001 type quality assurance.

Links

Companion Volume Implementation Guides are found in VETNet -

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