



Australian Government

UEEHA0037 Verify compliance of repaired reeling, trailing and flexible cables and attachments - coal mining

Release: 1

UEEHA0037 Verify compliance of repaired reeling, trailing and flexible cables and attachments - coal mining

Modification History

Release 1. This is the first release of this unit of competency in the Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to verify compliance of repaired and tested reeling, trailing and flexible cables and their plug/coupler assemblies. It includes: working safely and to standards; and evaluating repairs against the required standards and required repair records in accordance with the duties of ‘the responsible person’.

It is adopted from clause 2.20 of AS/NZS 4761.1:2018 Competencies for working with electrical equipment for hazardous areas (EEHA). There may be differences between the content of this unit and AS/NZS 4761.1:2018, so the Standard must be checked to ensure compliance with it.

This unit applies to electrical equipment overhaul and repair job functions.

Site-specific work permits may be required to work in the hazardous environment. In addition, other permits may be required, such as confined space and to operate specific pieces of equipment such as elevated work platforms in various jurisdictions.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Pre-requisite Unit

UEEHA0024 Inspect, maintain and fit plugs/couplers for reeling, trailing and flexible cables - coal mining

Competency Field

Hazards

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Prepare to verify compliance of repaired cables

- 1.1** Safe work methods for the work are obtained and interpreted
- 1.2** Cable repair facility quality assurance system procedures are interpreted and applied
- 1.3** Specifications and instructions for cable repair are received and expected outcomes of the work confirmed with the user
- 1.4** Cable history test records are reviewed to identify potential issues and ascertain the viability of repair
- 1.5** Certification documentation for plugs/couplers are obtained and compliance of the equipment with certification checked
- 1.6** Tools, equipment and testing devices needed to verify compliance are obtained and checked for correct operation, safety and currency of calibration certification

2 Carry out verification of compliance

- 2.1** Safe work methods for the work are applied
- 2.2** Documentation of pre and post repair test results are compared with requirements of compliance standards
- 2.3** Compliance verification measurements, tests and inspections carried out on the repaired cable and fitted plug/coupler assemblies in accordance with quality assurance systems procedures
- 2.4** Actions are taken to have any non-compliance aspects shown by measurements, tests and inspection results rectified in accordance with quality system procedures
- 2.5** Safe work methods for cleaning the work area and storing equipment at the completion of cable repair work are applied

3 Complete and document cable repair work

- 3.1 Verification of compliance is documented, including update of cable test history records in accordance with quality assurance procedures
- 3.2 Verification of compliance is issued to the appropriate persons in accordance with quality assurance 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 Electrotechnology Training Package Companion Volume Implementation Guide.

This unit must include these conditions in relation to compliance verification of the repair of at least four separate cables, including the fitting of the plugs/couplers certified for each explosion-protection technique of flameproof (Ex ‘d’), increased safety (Ex ‘e’), intrinsically safe (Ex ‘i’) and encapsulation-dusts (Ex ‘mD’). Among the cables for which competency is required, all of the following features shall be included:

- Standard conductor construction 209; 210; 240; 241; 260; 275; 409; 412.1; 440; 441.1; 441; 450; 455.
- Super flexible 245.
- XR-EP-90 insulated compound 441; 450; 455.
- Semi conductive extruded screens 241; 245; 441.1; 441; 450; 455.
- Metal braided screens 209; 210; 240; 260; 409; 440; 450.
- Interstitial earths 241; 245; 275; 412.1; 441.1; 441; 450; 455.
- Interstitial pilots 240; 260; 440; 450; 455.
- Central pilot 209; 210; 241; 245; 275; 409; 441.1; 441.
- Pliable armour 260; 412.1.
- Sheath reinforcement 241; 245; 274; 441.1; 441; 450; 455.

Unit Mapping Information

This is a new unit.

Links

Companion Volume Implementation Guides are found in VETNet -

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

Assessment Requirements for UEEHA0037 Verify compliance of repaired reeling, trailing and flexible cables and attachments - coal mining

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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:

- preparing to verify compliance of repaired cables including:
 - following quality assurance system procedures
 - reviewing specifications and instruction for repair of cables and cable repair history to ascertain the viability of repair
 - checking compliance certification of plugs and couplings
 - checking tools and equipment for correct operation and safety and currency of testing device calibration
- verifies compliance of repaired cables and fittings including:
 - accepting and following safe work methods
 - comparing pre and post repair test results with requirements of compliance standards
 - carrying out compliance verification measurements, tests and inspections in accordance with quality assurance procedures
 - tacking action to have non-compliance aspects of repairs rectified
 - following safe work methods for cleaning the work area and storing equipment at the completion of work
- documenting verification of compliance repairs and issues to appropriate person in accordance with quality assurance procedures.

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:

- quality assurance systems including:
 - quality assurance systems overview
 - quality procedures for cable, plug and coupler repairs
- compliance documentation system including:

- user records and instructions for repair
- plug and coupler certification
- repair history records.

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

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