



Australian Government

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

Release: 1

UEEHA0036 Test reeling, trailing and flexible cables and their attachments used in 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 pre and post-repair test reeling, trailing and flexible cables and their attachments, as used in coal mining. It includes: working safely and to standards; evaluating the condition of cables; conducting cable tests; finding faults; writing repair specifications; and documenting test results and cable repair history.

It is adopted from clause 2.18 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

UEEHA0030 Repair reeling, trailing and flexible cables used in 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 test cables

- 1.1** Safe work methods to test damaged and repaired cables are obtained and understood
- 1.2** Cable to be tested before and after repair is confirmed with supervising personnel
- 1.3** Cable repair history and test records are reviewed to identify potential issues and ascertain the viability of repair
- 1.4** Tools, equipment and testing devices needed to carry out the tests are obtained and checked for correct operation, safety and currency of calibration certification

2 Determine the extent of cable repairs by fault finding, testing and inspection

- 2.1** Safe work methods to carry out cable inspecting and testing are obtained interpreted and applied
- 2.2** Knowledge of basic electrical quantities, circuits and cable design parameters and how they are tested and measured is applied to cable testing
- 2.3** Cable testing devices are handled carefully and set up correctly prior to each test
- 2.4** Cables are inspected and tested to ascertain the viability of repairs or extent of repairs required
- 2.5** Viability and extent of the cable repair is determined from inspection, test results and cable repair history records
- 2.6** Decision on the viability of repair and instructions for the repair of the cable are documented and forwarded to the responsible personnel

3 Test repaired cable

- 3.1** Safe work methods to carry out cable testing are obtained interpreted and applied
- 3.2** Cable testing devices are handled carefully and set up correctly prior to each test
- 3.3** Each test reading is taken accurately, interpreted and recorded

	3.4	Actions to rectify any non-complying parameters shown by test results are documented and forwarded to the responsible personnel
	3.5	Safe work methods for the care and storage of test equipment at the completion of testing are followed
4 Document test results, fault finding and cable repair	4.1	Cable history test records are updated in accordance with quality assurance procedures
	4.2	Responsible supervisor is notified of the completion of the work 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 pre and post repair testing of at least four separate cables. Among the cables for which competency is required, all of the following features shall be included:

Cable features	AS/NZS designated cable type
• 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>