



Australian Government

UEERL0003 Conduct in-service safety testing of electrical cord connected equipment and cord assemblies

Release: 1

UEERL0003 Conduct in-service safety testing of electrical cord connected equipment and cord assemblies

Modification History

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

Application

This unit involves the skills and knowledge required to conduct in-service safety testing of electrical cord connected equipment and cord assemblies.

It includes working safely, using portable appliance tester (PAT), identifying faults, applying tagging, arranging for repair of faulty equipment and complete testing documentation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Restricted Licensing

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to test cord connected apparatus and cord assemblies

PERFORMANCE CRITERIA

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

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) procedures for a given work area are identified, obtained and applied
- 1.2** WHS/OHS risk control work preparation measures and procedures are followed

- | | | |
|----------|---|--|
| | 1.3 | Advice is sought from relevant person/s to ensure work is effectively coordinated with others |
| | 1.4 | Cord connected apparatus and cord assemblies to be tested are obtained in accordance with workplace procedures |
| | 1.5 | PAT device is checked for correct operation and safety in accordance with relevant industry standards and workplace procedures |
| 2 | Test cord connected apparatus and cord assemblies | |
| | 2.1 | WHS/OHS risk control work measures and procedures are followed |
| | 2.2 | Measures are followed to ensure that cord connected apparatus and cord assemblies to be tested are not connected to the electrical supply in accordance with relevant industry standards |
| | 2.3 | Electrical safety requirements and parameters are applied to ensure correct test results are in accordance with relevant industry standards |
| | 2.4 | Visual inspection and checks of the cord connected apparatus and cord assemblies are carried out in accordance with workplace procedures to detect any abnormal damage or fault |
| | 2.5 | Approval is obtained in accordance with workplace procedures from relevant person/s before any contingencies are implemented |
| | 2.6 | PAT routines are followed to test cord connected apparatus and cord assemblies in accordance with workplace procedures |
| | 2.7 | Unsafe cord connected apparatus and cord assemblies are identified from test results in accordance with workplace procedures |
| | 2.8 | Testing is undertaken effectively to minimise waste of energy and damage to apparatus |
| 3 | Tag cord connected apparatus and cord assemblies and document testing activities | |
| | 3.1 | WHS/OHS work completion risk control measures and procedures are followed |

- 3.2 Worksite is cleaned and made safe in accordance with workplace procedures
- 3.3 Cord connected apparatus and cord assemblies are tagged in accordance with workplace procedures for their safety status
- 3.4 Arrangements are made for unsafe cord connected apparatus and cord assemblies to be repaired by relevant person/s
- 3.5 Safety testing activities are documented in accordance with relevant industry standards and workplace 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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

In-service safety testing must include the following:

- at least two different electrical cords and three different items of cord connected equipment with safety faults, including:
 - a device containing an element
 - a device containing a motor
 - a device containing metal oxide varistors (MOV)

Unit Mapping Information

This unit replaces and is equivalent to UEENEEP026A Conduct in-service safety testing of electrical cord connected equipment and cord assemblies.

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 UEERL0003 Conduct in-service safety testing of electrical cord connected equipment and cord assemblies

Modification History

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 appropriate tagging
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- connecting cords and apparatus to the testing device
- dealing with unplanned events in accordance with problem-solving techniques and workplace procedures
- documenting testing activities, including workplace register
- identifying safe and unsafe cords and apparatus
- preparing to test cord connected apparatus and cord assemblies
- preparing and using the portable appliance tester (PAT)
- safety testing of electrical cord connected equipment and cord assemblies
- tagging tested cord connected apparatus and cord assemblies and document testing activities
- using test results to determine the safety status.

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:

- Australian Standards and Commonwealth/state/territory legislation and regulations including:
 - Australian Standard AS/NZS 3760 In-service safety inspection and testing of electrical equipment
 - Commonwealth/state/territory WHS/OHS Acts and regulations
 - limitations of work that can be undertaken
 - codes of practice and associated guidance material
 - risk management principles
- basic electrical testing concepts, including:

- basic electrical circuits
- functions of electrical circuit
- conductors and insulators
- basic electrical supply system
- relationship of electrical quantities
- effects of electrical currents
- methods/devices used to negate or minimise electrical shock
- PAT
- PAT maintenance and calibration
- electrical equipment and cord assemblies testing, including:
 - classification of electrical equipment
 - inspection of electrical equipment (visual inspections)
 - using PAT:
 - earth continuity testing
 - insulation resistance testing
 - polarity testing (extension cords and IEC cords)
- testing and tagging documentation requirements, including:
 - risk assessment documentation
 - frequency of inspection and testing
 - tagging of equipment
 - records maintenance
- electrical cord testing and tagging documentation requirements
- electrical equipment and cord assemblies testing
- electrical testing concepts
- problem-solving techniques
- relevant job safety assessments or risk mitigation processes
- relevant legislation and regulations
- relevant manufacturer specifications
- relevant testing and tagging of portable and cord connected electrical apparatus
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

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 simulated suitable 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 simulations
- relevant and appropriate materials, tools, facilities. equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to conducting in-service safety testing of electrical cord connected equipment and cord assemblies
- 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=b8a8f136-5421-4ce1-92e0-2b50341431b6>