



Australian Government

UEEHA0026 Maintain equipment associated with hazardous areas

Release: 1

UEEHA0026 Maintain equipment associated with hazardous areas

Modification History

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

This unit replaces and is equivalent to UEEHA0006 Maintain equipment associated with hazardous areas.

Prerequisite requirements have been amended.

Application

This unit involves the skills and knowledge required to maintain equipment associated with hazardous areas. It includes determining required remedial maintenance from inspection reports; carrying out remedial and breakdown maintenance in compliance with regulations and safe working methods, standards and manufacturer's instructions; and completing the necessary maintenance documentation.

For the purpose of applying this unit, 'hazardous areas' are defined as areas in which an explosive atmosphere may be present.

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 (EWPs) 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.

This unit of competency and associated assessment requirements is adopted from clause 2.6 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. Clause 2.6 of AS/NZS 4761.1:2018 includes the following precondition for assessment:

- "A candidate seeking assessment in this unit shall have been deemed competent to maintain electrical equipment in a non-hazardous area at AQF level 3 or NZQF level 4.

Pre-requisite Unit

UEEHA0004 Enter a classified hazardous area to undertake work related to electrical equipment

UEEHA0022 Determine the explosion-protection requirements to meet a specified classified hazardous area

Competency Field

Hazardous

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to carry out maintenance of equipment

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS policies and procedures to work in hazardous areas are identified and applied
- 1.2** Area classification and details of explosion-protected equipment and wiring are ascertained from hazardous area zone drawings and equipment certification documents held in the verification dossier
- 1.3** Extent of remedial maintenance to be conducted is determined from regulatory requirements and/or inspection records held in the verification dossier
- 1.4** Extent of breakdown maintenance is evaluated and confirmed with person/s reporting the breakdown
- 1.5** Limits of breakdown maintenance that can be carried out in situ with regard to explosion risk is determined in consultation with technical management personnel
- 1.6** Required tools, equipment and testing devices are obtained and checked for operational safety

2 Carry out equipment maintenance

- 2.1** WHS/OHS policies and procedures for working in hazardous areas, including isolation of equipment, are followed
- 2.2** Work is carried out in accordance with inspection records
- 2.3** Requirements and limitations of scheduled and breakdown remedial maintenance requirements are applied

- 2.4 Equipment is adjusted and maintained within the limits permitted by the equipment certification and in accordance with the manufacturer's instructions
 - 2.5 Certification documentation for like-for-like replacement parts is sighted to ensure compliance with the equipment certification and manufacturer's instructions
 - 2.6 Circuits of equipment being withdrawn from service are isolated and terminated safely and in accordance with maintenance standards
 - 2.7 Flexible cables and cords are examined and removed from service if they are not in immediate use or are found to be defective or damaged
 - 2.8 Spare equipment, flexible cables and cords are maintained and stored where they are not likely to suffer deterioration or damage
- 3 **Complete maintenance work and documentation**
 - 3.1 Inspection of maintenance work is arranged in compliance with maintenance standards and regulatory requirements
 - 3.2 Action is taken to rectify maintenance defects (non-conformances) found during the maintenance work inspection
 - 3.3 Safety assessment for isolation of equipment is recorded in accordance with maintenance standards
 - 3.4 Completed maintenance work is documented in accordance with requirements and forwarded to relevant person/s for inclusion in the verification dossier

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.

Maintaining equipment associated with hazardous areas must include:

- maintaining electrical equipment in a classified hazardous area

Unit Mapping Information

This unit replaces and is equivalent to UEEHA0006 Maintain equipment associated with hazardous areas.

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 UEEHA0026 Maintain equipment associated with hazardous areas

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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, performance criteria and range of conditions on at least two separate occasions and include:

- preparing to undertake maintenance of equipment associated with explosive atmospheres, including:
 - reviewing safe work methods associated with the classified area in which the work is to be carried out
 - ascertaining the area classification and details of equipment from documentation held in the verification dossier
 - reviewing inspection records to determine the extent of remedial maintenance
 - evaluating the extent of breakdown maintenance in consultation with reporting personnel
 - consulting with technical personnel to determine the limits of maintenance and repair that can be carried out in situ
 - checking the safety of compliant tools, equipment and testing devices required to carry out the inspection
- maintaining electrical equipment associated with explosive atmospheres as specified in the inspection records, including:
 - following safe work methods relating the work, including isolation of equipment
 - adjusting and repairing equipment within the limits permitted by the equipment certification regulations and in accordance with manufacturer's instructions
 - using replacement parts permitted by the equipment certification, regulations and manufacturer's instructions
 - isolating and terminating circuits of equipment withdrawn from service in accordance with applicable standards
 - examining flexible cables and cords and removing them from service if not in immediate use or if showing defections
 - maintaining spare equipment flexible cable and cords and storing them to prevent deterioration or damage

- completing maintenance work inspections and documentation, including:
 - arranging for inspection of the maintenance work
 - rectifying maintenance defects (non-conformances) found by the maintenance work inspection
 - recording safety assessments undertaken for isolation equipment during maintenance
 - completing maintenance work, documenting the work and forwarding the documentation for inclusion in the verification dossier.

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:

- safe work procedures for explosive atmospheres including:
 - work health and safety (WHS)/occupational health and safety (OHS) procedures for working in hazardous areas
 - permit to work systems that cover the hazardous aspects of specific work and locations
- requirements and limitations of remedial maintenance, including:
 - scheduled maintenance specified in inspection records for particular items of equipment
 - limits of maintenance in response to a breakdown
 - isolation and termination of circuits of equipment being withdrawn from service
 - compliance standards, equipment certification and manufacturer's instructions regarding use, maintenance and repair of explosion-protected equipment.

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 and include:

- an area designated as a hazardous area which is a close facsimile of a real work environment
- an area entry point
- delineation of the area into zones for both gas and dust
- a person to act as the 'authorised person' for the site
- a qualified supervisor.

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 access equipment, explosive atmosphere equipment, tools and testing devices permitted in a hazardous area, materials and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, safe work methods, explosive atmosphere installation and inspection standards, industry standards, equipment specifications, regulations, codes of practice and operation manuals
- verification dossier for the site, including:
 - design documentation
 - area classification drawings
 - certification documents for each item of equipment
 - inspection records
 - maintenance records
- clearance-to-work permit in particular locations and situations.

Links

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