



Australian Government

UEEHA0002 Conduct visual and close inspection of electrical installations for hazardous areas

Release: 1

UEEHA0002 Conduct visual and close inspection of electrical installations for hazardous areas

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 visual and close inspections of the explosion-protection aspects of electrical installations associated with hazardous areas. It includes working safely in a hazardous area; identifying by visual or close inspection conditions of the electrical installation that affect the integrity of explosion-protection; and documenting inspection findings. It is adopted from clause 2.3 of AS/NZS 4761.1:2018 Competencies for working with electrical equipment for hazardous areas (EEHA).

This unit applies to basic inspection functions.

Site-specific work permits maybe 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

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

UEEEL0039 Design, install and verify compliance and functionality of general electrical installations

or

UEEEL0028 Conduct compliance and functional verification of electrical apparatus and existing circuits

or

UEEIC0048 Verify compliance and functionality of instrumentation and control installations

Competency Field

Hazardous

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare for inspection

- 1.1** Safe work methods for undertaking visual and close inspections are obtained and interpreted
- 1.2** Knowledge of the purpose, scope and limitations of visual and close inspections is applied to preparation for the work
- 1.3** Type and location of each item of equipment subject to inspection are determined from the inspection program for the site

2 Carry out verification of compliance

- 2.1** Safe work methods for undertaking visual and close inspections in hazardous areas, including isolation of equipment, are applied
- 2.2** Knowledge of defects impairing the integrity of the type of protection that are identifiable by visual and close inspection is applied
- 2.3** Equipment is visually and closely inspected and defects impairing the integrity of the type of protection are identified

3 Record inspection results

- 3.1** Defects identified by visual and close inspection are recorded in accordance with inspection standards and site record systems
- 3.2** Documentation in relation to all aspects of the inspection is forwarded to the authorised person 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.

Unit Mapping Information

No equivalent 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 UEEHA0002 Conduct visual and close inspection of electrical installations for hazardous areas

Modification History

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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 conduct a visual and close inspection of electrical installations for gas and dust hazardous areas, including:
 - reviewing safe work methods associated with the classified area in which the work is to be carried out
 - determining the type and location of equipment subject to the inspection
- conducting visual and close inspections of electrical installations in gas and dust hazardous areas, including:
 - obtaining interpreting and applying safe work methods
 - identifying defects impairing the integrity of the type of protection
- completing record of visual and close inspections of electrical installations in gas and dust hazardous areas, including:
 - recording defects identified in the inspection impairing the integrity of the type of protection
 - forwarding the inspection record 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:

- purpose, scope and limitations of visual and close inspections, including:
 - inspection program for the site based on schedules specified in inspection standards
 - periodic inspection schedules covering equipment, installations and environment for:
 - flameproof - Ex 'd'
 - increased safety - Ex 'e'
 - non-sparking - Ex 'n'
 - intrinsic safety - Ex 'i'
 - intrinsic safety - Ex 'iD'

- non-sparking - Ex 'nL'
- pressurisation - Ex 'p'
- pressurisation - Ex 'pD'
- protection by enclosure - Ex 'tD'
- aspects of close and visual inspections, including:
 - items subject to visual and close inspection listed in schedules specified in inspection standards
 - defects impairing the integrity of the type of protection that can be identified by visual and close inspection, including:
 - excessive corrosion
 - missing cover and mounting bolts
 - enclosure or cable damage
 - non-secured cables
 - exposed armouring/cable cores at glanding points
 - missing or illegible labels.

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:

Where evidence is gathered from a simulated work environment, the environment shall be arranged to include the following:

- an area designated as an explosive atmosphere 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 tools and testing devices and personal protective equipment (PPE) currently used in industry
- safe work methods

- site inspection schedule
- inspection reporting system
- explosion-protected electrical installation with and without defects that can be detected by visual and close inspection.

Links

Companion Volume implementation guides are found in VETNet - -

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