



Australian Government

UEEHA0003 Determine the explosion-protection requirements to meet a specified classified hazardous area

Release: 1

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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 determine the explosion-protection requirements to meet a specified classified hazardous area. It includes determining the type of explosion-protected equipment for a given explosive atmosphere. It also includes reading and interpreting the explosion-protection fundamentals in explosive atmosphere technical standards; understanding the information given in certification documents, verification dossiers and equipment marking; identifying the design features of each type of explosion-protected equipment; understanding actions and conditions that would void the explosion-protection afforded by each equipment type; and understanding where each equipment type may be used. It is adopted from clause 2.4 of AS/NZS 4761.1:2018 Competencies for working with electrical equipment for hazardous areas (EEHA).

This unit applies to design, installation, maintenance, inspection, auditing, and repair and overhaul 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 (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.

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.

1 Prepare to review explosion-protection technical standards

2 Ascertain the requirements for each explosion-protection type

PERFORMANCE CRITERIA

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

- 1.1** Technical standards specifying the requirements to which each type of explosion-protected equipment is required to comply are identified
- 1.2** A verification dossier for a site that has gas hazards is reviewed and requirements for the explosive atmospheres are established
- 1.3** A verification dossier for a site that has dust hazards is reviewed and requirements for the explosive atmospheres are established
- 2.1** Protective features of each equipment type are identified through application of knowledge of explosion-protection methods
- 2.2** Equipment standards are reviewed to establish the compliance requirements for each equipment type
- 2.3** Aspects that are vulnerable to voiding the protection due to defective installation or poor maintenance are determined from knowledge of equipment types and equipment standards
- 2.4** Items of explosion-protected equipment are examined to identify any condition that would void the protection
- 2.5** Where particular explosion-protected equipment types may be used, relevant technical standards, equipment certification and the verification dossier for a given site are established

3 Identify acceptable equipment certification

- 3.1** Knowledge of the equipment certification process and acceptable standards are applied
- 3.2** The required marking on certified equipment is obtained from relevant technical standards
- 3.3** The suitability of explosion-protection equipment items for a given application and location is ascertained from relevant technical standards, certification documents, equipment marking and the verification dossier for a given site

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.

Determining the explosion-protection requirements to meet a specified classified hazardous area must include:

- using standards, equipment certification and installation design documentation and site-specific verification dossiers for any application in which explosion-protected equipment is used

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>