Australian Government

UEEHA0008 Design gas detection systems

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 design gas detection electrical systems and installation for a hazardous area.

It includes determining gas detection electrical system equipment parameters and evaluating these against manufacturer specifications. It also includes designing and documenting gas detection electrical system.

This unit augments formally-acquired competencies in a relevant industry. It applies to engineering design job functions at least at an engineering associate level.

Hazardous area (gas or vapour) is one in which an explosive gas atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of apparatus.

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

Pre-requisite Unit

Not applicable.

Competency Field

Hazardous

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 Determine gas detection electrical system parameters	**1.1** Requirements for gas detection system are obtained or determined with relevant person/s
	1.2 System parameters for gas detection are obtained and documented from consultation with relevant person/s
	1.3 Explosion-protection requirement for gas detection equipment is determined from area classification documents
2 Select gas detection electrical equipment	**2.1** Manufacturer specifications and operating limitations of gas equipment are obtained and analysed in accordance with workplace requirements
	2.2 Manufacturer specifications and operating limitations are compared with the required workplace parameters for gas detection system
	2.3 Gas detection equipment is selected on compatibility with hazardous area workplace parameters and economic considerations
3 Document gas detection equipment design	**3.1** Proposed gas detection equipment design is checked in accordance with workplace procedures for compliance with relevant industry standards and hazardous area requirements
	3.2 Gas system specification for gas detection equipment is documented in accordance with 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.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEM079A Design of gas detection systems.

Links

Companion Volume implementation guides are found in VETNet - - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6