

Title	Demonstrate knowledge of hazardous areas on the gas network		
Level	4	Credits	4

Purpose	<p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – demonstrate knowledge of hazardous areas on the gas network; and – explain safe working practices before entering and working in a hazardous area.
----------------	---

Classification	Gas Industry > Gas Network Operations
-----------------------	---------------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer specifications, company procedures, and legislative requirements.
- 2 Legislation, regulations, and standards relevant to this unit standard include:
 - Gas Act 1992;
 - Electricity Act 1992;
 - Health and Safety at Work Act 2015;
 - Electricity (Safety) Regulations 2010;
 - Gas (Safety and Measurement) Regulations 2010;
 - Health and Safety in Employment (Pipelines) Regulations 1999;
 - AS/NZS 4645.1:2018 *Gas distribution networks – Part 1: Network management*;
 - AS/NZS 4645.2:2018 *Gas distribution networks – Part 2: Steel pipe systems*;
 - AS/NZS 4761.1: 2018 *Competencies for working with electrical equipment for hazardous areas (EEHA) – Part 1: Competency Standards*;
 - AS/NZS 3000:2018 *Electrical installations (known as the Australian/New Zealand Wiring Rules) including Amendment 1*;
 - AS/NZS 60079.10.1: 2022 *Explosive atmospheres – Part 10.1: Classification of areas – Explosive gas atmospheres*, available from www.standards.govt.nz;
 - AS 60529-2004 (R2018) *Degrees of protection provided by enclosures (IP Code)*, available from <https://codehub.building.govt.nz/>;
 - IEC Ex; *System for Certification to Standards Relating to Equipment for use in Explosive Atmospheres*, available from www.iecex.com, and any subsequent amendments and replacements.

3 Definition

Company procedures mean the documented methods for performing work activities, and include health and safety, operational, environmental, and quality management requirements. They may refer to legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.

Hazardous area means an area in which an explosive 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 equipment.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazardous areas on the gas network.

Performance criteria

- 1.1 IEC Ex classification of hazardous areas is described in terms of zones 0, 1, and 2.
- 1.2 Types of hazardous areas on the gas network are explained in accordance with company procedures.
- Range gas measurement system, pressure reduction station, valve enclosure.
- 1.3 Potential sources of ignition in hazardous areas are explained in accordance with company procedures.
- Range personal electrical equipment, electrical circuits, batteries, hot surfaces, cathodic protection, welding, static electricity, lightning.
- 1.4 Equipment protection methods are described in terms of safe working practices.
- Range flame-proof, increased safety, intrinsically safe, non-sparking.
- 1.5 System of certifying electrical equipment for use in hazardous areas is described in terms of the IEC Ex system.
- 1.6 Types of hazardous area are described in terms of their inspection requirements.
- Range visual, close, detailed.

Outcome 2

Explain safe working practices before entering and working in a hazardous area.

Performance criteria

2.1 Safe working practices before entering and working in a hazardous area are explained in terms of their application.

Range hazardous area drawings, permit to work, personal protective equipment, identification and isolation of ignition sources, electrical isolation, gas detection equipment, ventilation, tools.

Planned review date	31 December 2028
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 April 2023	N/A

Consent and Moderation Requirements (CMR) reference	0014
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.