

Title	Demonstrate knowledge of working in gas contaminated environments in plumbing, gasfitting, or drainlaying		
Level	2	Credits	3

Purpose	<p>This unit standard is for people who work, or intend to work, in the plumbing, gasfitting, or drainlaying industries.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of the properties and hazards of gas types that may contaminate plumbing, gasfitting, or drainlaying environments; and describe the precautions and actions to be taken when working in the presence of uncontained gas types for plumbing, gasfitting, or drainlaying.</p>
----------------	--

Classification	Plumbing, Gasfitting and Drainlaying > Core Plumbing, Gasfitting, and Drainlaying
-----------------------	---

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

Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to:
 Health and Safety at Work Act 2015;
 AS/NZS 2865:2001 *Safe working in a confined space*, available at <http://www.standards.govt.nz>.

Guidance when working with Organic Solvents – WorkSafe guidelines, available from WorkSafe: <https://www.worksafe.govt.nz/topic-and-industry/hazardous-substances/guidance/substances/organic-solvents/>.

Any new, amended or replacement referenced standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the properties and hazards of gas types that may contaminate plumbing, gasfitting, or drainlaying environments.

Performance criteria

1.1 Identify the types of gasses that can commonly present hazards in a plumbing, gasfitting or drainlaying work environment.

Range includes but is not limited to – ground and sewer gases and fumes, exhaust fumes, LPG, Natural Gas, methane, carbon monoxide, oxygen, acetylene, hydrogen sulphide, carbon dioxide, refrigerants.

1.2 Describe the main properties of the gases as identified in 1.1.

Range composition, visibility, flammability, toxicity, relative density, smell.

1.3 Describe three dangers of working where gas is present.

1.4 Describe three safe working practices when working with solvents.

Outcome 2

Describe the precautions and actions to be taken when working in the presence of uncontained gas types for plumbing, gasfitting, or drainlaying.

Performance criteria

2.1 Describe the precautions to be taken to prevent fire and to protect personnel.

Range flammable mixture, sources of ignition, toxicity, need for ventilation.

2.2 Describe appropriate actions to eliminate sources of ignition.

Range sources of ignition may include – tools, stray electric currents, naked flames, smoking or vaping, electrical equipment, static electricity, electric cables, vehicles, machinery.

2.3 Describe appropriate actions to be taken in the event of a gas fire.

Range actions may include – extinguishing a fire, allowing gas to continue to burn off, isolating a gas supply, activation of an emergency plan.

2.4 Describe appropriate actions to be taken in the event of exposure to toxic gases.

2.5 Describe notification requirements to inform others of the gas incursion.

Range others in or surrounding the work site who may become affected, emergency services, regulatory bodies.

Planned review date	31 December 2029
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 October 2007	31 December 2022
Review	2	15 March 2012	31 December 2022
Review	3	28 September 2017	31 December 2028
Review	4	30 May 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003
--	------

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 Qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.