

Title	Test gas for odour level and odorant concentration in a gas network		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to: demonstrate knowledge of procedures, documentation, and equipment for testing gas for odour level and odorant concentration; test gas for odour level and odorant concentration; and complete documentation and reporting requirements.
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Classification	Gas Industry > Gas Network Operations
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Available grade	Achieved
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Guidance Information

- 1 This unit standard is intended for, but is not limited to, workplace assessment. The range statements relate to site specific equipment, procedures and processes.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, company procedures and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 3 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of:
 - Gas Act 1992;
 - Hazardous Substances and New Organisms Act 1996;
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - Gas (Safety and Measurement) Regulations 2010;
 - NZS 5263:2003 *Gas detection and odorization*;
 - AS/NZS 4645.1:2018 *Gas distribution networks – Network management*;
 - AS 2885.3-2012 *Pipelines – Gas and liquid petroleum Operation and maintenance*;
 - and any subsequent amendments and replacements.
- 4 References
 - Australian standards (AS) may be found at www.standards.org.au;
 - Australian/New Zealand standards (AS/NZS) may be found at www.standards.govt.nz;
 - New Zealand standards (NZS) may be found at www.standards.govt.nz.
- 5 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

- 6 For the purpose of this unit standard the term 'gas' refers to natural gas; liquefied petroleum gas (LPG); tempered liquefied petroleum gas (TLPG), and biogas.
- 7 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.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of procedures, documentation and equipment for testing gas for odour level and odorant concentration.

Performance criteria

- 1.1 Documentation and company procedures for testing gas for odour level and odorant concentration are located and interpreted in relation to specified job requirements.
- Range manufacturer's instructions, equipment operating manuals, maintenance procedures, test certificates, calibration labels.
- 1.2 Potential environmental and safety hazards are identified.
- Range hazards may include – gas release, hazardous areas, olfactory, waste, traffic, odour desensitization; evidence of four hazards is required; controls may include – signage, barriers, personal protective equipment, temporary traffic control, intrinsically safe equipment, environmental protection, frequency of tests, workplace exposure standards; evidence of four different controls is required.
- 1.3 Types and function of odour level and odorant concentration testing equipment, components, and materials are identified and described.
- Range type may include – odorometer, odorator, vacuum pump test tubes, manual or automatic pumps, sample vessel, sample lines and connections; function – odour level, odorant concentration.
- 1.4 Potential risks of incorrect application and operation of equipment and procedures, and the steps to avoid them are described.

1.5 Resource requirements are identified and sourced.

Range may include –tools, equipment, materials, documentation, personnel, communication equipment, personal protective equipment.

Outcome 2

Test gas for odour level.

Performance criteria

2.1 Odour level testing equipment is selected for conditions and site application.

2.2 Equipment is operated to test gas for odour level.

2.3 Safety procedures relating to odour level testing techniques are demonstrated.

Outcome 3

Test gas for odorant concentration.

Performance criteria

3.1 Odorant concentration testing equipment is selected for conditions and site application.

3.2 Equipment is operated to test gas for odour concentration.

3.3 Safety procedures relating to odorant testing techniques are demonstrated.

Outcome 4

Complete documentation and reporting requirements.

Performance criteria

4.1 Information about gas odour level and odorant concentration is communicated.

Range may include – special conditions, test results, non-compliant readings, additional works.

4.2 Records and documents are completed and processed.

Replacement information	This unit standard replaced unit standard 9573.
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Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 January 2004	31 December 2018
Rollover and Revision	2	20 November 2006	31 December 2020
Review	3	17 August 2017	31 December 2021
Revision	4	30 August 2018	31 December 2021
Review	5	27 February 2020	N/A
Rollover	6	30 January 2025	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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.