

<b>Title</b>	<b>Repair gas escapes in a gas network</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: <ul style="list-style-type: none"> <li>– demonstrate knowledge of documentation, company procedures, hazards, and repairs in a gas network;</li> <li>– prepare for and make repairs to a gas network; and</li> <li>– complete reporting and documentation procedures.</li> </ul>
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<b>Classification</b>	Gas Industry > Gas Network Operations
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<b>Available grade</b>	Achieved
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### 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, standards, and guidelines relevant to this unit standard include:
  - Health and Safety at Work Act 2015;
  - Gas Act 1992;
  - Resource Management Act 1991;
  - 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 4645.3: 2018 *Gas distribution networks – Part 3: Plastics pipe systems*;
  - AS/NZS 2885.2: 2020 *Pipelines – Gas and liquid petroleum Part 2: Welding*;
  - NZS 5259: 2015 *Gas Measurement*, available from [www.standards.govt.nz](http://www.standards.govt.nz); and any subsequent amendments and replacements.
- 3 Evidence is required of repairs to one above ground and below ground gas escape.
- 4 Definitions  
*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.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of documentation, company procedures, hazards, and repairs in a gas network.

**Performance criteria**

- 1.1 Documentation and company procedures for gas escape repairs are interpreted and described in terms of purpose.
- Range may include – company standard, safe work procedure, operating procedure, maintenance procedure, work instruction, fitting installation manual, job hazard analysis, job risk assessment.
- 1.2 Documentation and instructions for a specified job are confirmed for accuracy.
- Range instructions may include – job card, site location, network drawings, utility plans, permits, consents, easement conditions.
- 1.3 Potential safety hazards and controls are described.
- Range hazards may include – fire, explosion, asphyxiation, excavations, gas escapes;  
controls may include – signage, barriers, personal protective equipment, safe access and egress, temporary traffic control, environmental protection.
- 1.4 Examples of gas escapes are described in terms of the type of repair.
- Range leaking equipment or fittings, third party damage, steel pipe integrity failure, polyethylene pipe integrity failure.
- 1.5 Methods of repair used for different gas escapes are described in terms of their application.
- Range isolation, remaking joints, applying sealants, re-crimping, temporary repair clamps, steel sleeve repair, composite sleeve repair, pipe section replacement using welded or mechanical fittings.

**Outcome 2**

Prepare for and make repairs to a gas network.

**Performance criteria**

- 2.1 Appropriate repair method is determined in accordance with company procedures.
- 2.2 Requirements for the repair are identified in terms of authorisations, hazards and controls.
- 2.3 Equipment and fittings are prepared for the repair.
- Range checks include – size, specification, pressure range, material compatibility.

2.4 Gas asset is prepared for the repair.

Range may include – isolate or reduce pressure, check existing pipe specification, mark-out, remove coating, clean, measure.

2.5 Repairs to a gas network are completed in accordance with company procedures.

Range may include – crimping, jointing, anaerobic sealant methods, caulking repairs, leak clamping, temporary wrapping, part replacement, isolation.

2.6 Repair is tested for leakage in accordance with company procedures.

### Outcome 3

Complete reporting and documentation procedures.

#### Performance criteria

3.1 Reporting and documentation procedures are completed and processed, and information is communicated to internal and external parties as required.

Range may include – as-built drawing, special conditions, completion notice, additional work, incident report, photographs.

<b>Planned review date</b>	31 December 2027
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 October 2002	31 December 2018
Review	2	20 November 2006	31 December 2020
Review	3	17 August 2017	31 December 2023
Revision	4	30 August 2018	31 December 2023
Review	5	27 May 2021	31 December 2025
Review	6	24 November 2022	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

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