

<b>Title</b>	<b>Perform maintenance on a standard gas pressure control and metering station</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, for a standard gas pressure control and metering station: demonstrate knowledge of documentation, company procedures, hazards and equipment for maintenance on a standard gas pressure control and metering station; prepare to maintain a standard gas pressure control and metering station; perform maintenance on a standard gas pressure control and metering station and ancillary equipment; recommission, purge and test a standard gas pressure control and metering station; and complete reporting and documentation.
----------------	---

<b>Classification</b>	Gas Industry > Gas Network Operations
-----------------------	---------------------------------------

<b>Available grade</b>	Achieved
------------------------	----------

<b>Pre-requisites</b>	Unit 32041, <i>Demonstrate knowledge of standard gas pressure control equipment and metering stations</i> , or equivalent knowledge and skills.
-----------------------	---

### Guidance Information

- 1 This unit standard is intended for, but not limited to, workplace assessment. The range statements relate to enterprise 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:
  - Health and Safety at Work Act 2015;
  - Gas Act 1992;
  - Gas (Safety and Measurement) Regulations 2010;
  - NZS 5259:2015 *Gas measurement*;
  - AS/NZS 4645.1:2018 *Gas distribution networks – Network management*;
  - AS/NZS 4645.2:2018 *Gas distribution networks – Steel pipe systems*;
  - AS/NZS 4645.3:2018 *Gas distribution networks – Plastics pipe systems*;
  - and any subsequent amendments and replacements.

#### 4 References

Australian/New Zealand standards (AS/NZS) may be found at [www.standards.org.au](http://www.standards.org.au);

New Zealand standards (NZS) may be found at [www.standards.govt.nz](http://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 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.

*Standard gas pressure control and metering station* includes Pressure Reducing Stations (PRS) and Gas Measurement Systems (GMS) for single point of supply installations with 2-stage pressure reduction and installations with a meter bypass stream that is normally closed. The following installations are excluded: district regulator stations, twin stream configurations, active/monitor configurations.

---

## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of documentation, company procedures, hazards and equipment for maintenance on a standard gas pressure control and metering station.

### Performance criteria

1.1 Documentation and company procedures for the maintenance of standard pressure control and metering station are located and interpreted.

Range may include – network standard, equipment operating manuals, maintenance procedures, standard operating procedure, safe work procedure, work instruction, job hazard analysis, job risk assessment.

1.2 Documentation and instructions for a specified job are obtained.

Range may include – job card, maintenance history, location drawing, piping and equipment drawing, pressure settings, hazard identification, permit, network plans, site liaison, authorisation.

- 1.3 Potential environmental and safety hazards and controls to maintain standard gas pressure control and metering station equipment are described.
- Range hazards may include – gas release, pneumatic pressure, confined spaces, vehicles and public, electrical, contaminants, ignition source;  
controls may include – gas detection equipment, safe access and egress, temporary traffic control, signage, barriers, personal protective equipment, continuity bond, earthing, waste removal and disposal, fire extinguisher;  
evidence of four hazards and controls are required.
- 1.4 Types and function of equipment, components, and materials for conducting maintenance are identified and described.
- Range gas detection, leak detection, calibrated gauges, spare parts, lubrication, paint, equipment specific tools.
- 1.5 Maintenance techniques for standard pressure control and metering stations are described.
- Range routine safety inspection, equipment functional check, equipment overhaul, non-routine maintenance, legislative requirements.
- 1.6 Potential hazards of incorrect application and operation of equipment and procedures are described.
- Range uncontrolled release of gas, supply interruption, damage to equipment, overpressure downstream, upstream impact, inaccurate data.

## Outcome 2

Prepare to maintain a standard gas pressure control and metering station.

### Performance criteria

- 2.1 Safety and environmental hazards are identified and controlled.
- Range hazards may include – gas release, confined space, other utilities, excavations, traffic, general public, pneumatic pressure, hazardous area;  
controls may include – signage, barriers, personal protective equipment, safe access and egress, temporary traffic control, environmental protection.
- 2.2 Maintenance equipment and materials are prepared, handled and positioned.
- Range may include – tools, gas detection, leak detection, calibrated pressure gauge, spare parts, equipment specific tools, lubrication, paint, documentation, personal protective equipment.

**Outcome 3**

Perform maintenance on a standard gas pressure control and metering station and ancillary equipment.

**Performance criteria**

3.1 Equipment is used to carry out maintenance of standard pressure control station, regulators, meters, and ancillary equipment.

Range may include – equipment functional tests, equipment settings, equipment overhaul, parts replacement, leakage checks, structural checks, corrosion checks, cleaning, inspection, lubrication, alignment, measurement, calibration.

**Outcome 4**

Recommission, purge and test a standard gas pressure control and metering station.

**Performance criteria**

4.1 Standard gas pressure control and metering station is recommissioned, purged and tested.

Range purge equipment, gas detection equipment, calibrated gauges, regulator set points, relief valve set points, flow indications, meter reading, leakage test.

**Outcome 5**

Complete reporting and documentation.

**Performance criteria**

5.1 Records and documents are completed and processed, and information is communicated to internal or external parties as required.

Range may include – completion notice, additional work, serial numbers, meter data, pressure settings, materials used.

<b>Replacement information</b>	This unit standard replaced unit standard 12513 and unit standard 12516.
<b>Planned review date</b>	31 December 2025

**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	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 MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.