

Title	Demonstrate knowledge of pigging on a gas network pipeline		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of pigging on a gas network pipeline.
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Classification	Gas Industry > Gas Network Construction
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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 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;
 - Health and Safety in Employment (Pipelines) Regulations 1999;
 - Gas Act 1992;
 - Gas (Safety and Measurement) Regulations 2010;
 - Resource Management Act 1991;
 - Hazardous Substances and New Organisms Act 1996;
 - AS/NZS 4645.1:2008 *Gas distribution networks. – Network management*;
 - AS/NZS 4645.2:2008 *Gas distribution networks – Steel pipe systems*;
 - AS/NZS 4645.3:2008 *Gas distribution networks – Plastic pipe systems*;
 - AS 2885.2012 *Pipelines – Gas and liquid petroleum*;
 - and any subsequent amendments or 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.
- 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.

Pigs are devices for insertion into pipelines for the purpose of cleaning or inspecting the lines or separating products.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of pigging on a gas network pipeline.

Performance criteria

1.1 Reasons for pigging pipelines are described.

Range internal cleaning, product separation, pipeline geometry, pipe wall metal loss, pipeline mapping, crack detection.

1.2 Types of pigs used for pigging applications are described.

Range may include – foam, spherical, cup, wire brush, magnetic, batch, gauge plate, magnetic flux leakage, XYZ, ultrasonic; evidence of five pig types is required.

1.3 Hazards and controls for a pigging operation are described.

Range hazards may include – gas atmosphere, gas venting, noise, waste products, spontaneously combustible materials, manual lifting and handling, stuck pig, sudden energy release, unrestrained pipe; evidence of five hazards is required.
controls may include – personal protective equipment, gas detection, pressure monitoring, waste containment and disposal, lifting and loading equipment, pig tracking, catchment, correct valve operating sequence, restraint, whip check; evidence of five different controls is required.

1.4 Ancillary equipment for a pigging operation is described.

Range may include – communication equipment, acoustic listening device, timer box.

1.5 Pig loading and launching is described.

Range may include – pig configuration, pig trap, valve sequence, venting, pressure differential, flow rate, pig log.

1.6 Pig tracking is described.

Range may include – pressure monitoring, above ground pipework, vent pipe, listening point, aerial crossing, acoustic listening device, timer box.

1.7 Pig receiving is described.

Range may include – pig trap, valve sequence, venting, pressure differential, catchment, waste containment, lifting and unloading equipment, pig condition, pig log.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 August 2017	31 December 2021
Review	2	27 February 2020	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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.