

Title	Install and test cathodic protection points in a gas network		
Level	5	Credits	7

Purpose	People credited with this unit standard are able to: locate and identify procedures, documentation, and equipment for installing and testing cathodic protection points, anodes, and insulation joints; prepare for, install, and test cathodic protection points; reinstate site; and complete reporting and documentation.
----------------	--

Classification	Gas Industry > Gas Network Operations
-----------------------	---------------------------------------

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

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.
- 3 Performance of the outcomes of this unit standard must comply with the following:
 Gas Act 1992;
 Health and Safety at Work Act 2015;
 Resource Management Act 1991;
 Gas (Safety and Measurement) Regulations 2010;
 AS/NZS 4645.2:2008 *Gas distribution networks – Steel pipe systems*;
 AS 2885.1-2012 *Pipelines – Gas and liquid petroleum Design and construction*;
 AS 2885.3-2012 *Pipelines – Gas and liquid petroleum Operation and maintenance*.
- 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.

Outcomes and performance criteria

Outcome 1

Locate and identify procedures, documentation, and equipment for installing and testing cathodic protection points, anodes, and insulation joints.

Performance criteria

- 1.1 Documentation and company procedures for installing and testing cathodic protection points, anodes, and insulation joints are located and interpreted in relation to specified job requirements.
- 1.2 Job instructions are confirmed.

Range instructions may include – site location, utility plans, specifications, consents, easements.
- 1.3 Potential environmental and safety risks are identified.
- 1.4 Types and function of equipment, components, and materials for installing and testing cathodic protection points, anodes, and insulation joints are identified and described.

Range wiring, connections, fittings, insulation kit, multimeter, test leads, continuity bond, tools, cad weld, wrapping, gas detector, pin brazing.
- 1.5 Potential risks of incorrect application and operation of equipment and procedures, and the steps to avoid them are described.
- 1.6 Resource requirements are identified and sourced.

Range plant, tools, materials, documentation, system components, personnel, communication equipment, personal protective equipment.

Outcome 2

Prepare for, install, test and monitor cathodic protection points.

Performance criteria

2.1 Safety and environmental risks are identified, and controlled.

Range risks 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.

2.2 Pipe work is prepared for cathodic protection connection.

Range sand blasting, wire brushing, priming, scraping, solvents, ultrasound.

2.3 Cathodic protection is installed.

Range anodes, connection, insulation kit, wrapping.

2.4 Installation equipment is used.

2.5 The installation is checked and points tested.

Range Holiday detector, multimeter.

2.6 Pipe work is monitored for cathodic protection.

Outcome 3

Reinstate site.

Performance criteria

3.1 Equipment and materials left temporarily on site are stored safely and securely, or arrangements are made for their collection.

3.2 Tools, equipment, and materials are removed from site.

3.3 Worksite is reinstated and made safe.

Outcome 4

Complete reporting and documentation.

Performance criteria

4.1 Information is communicated to internal and external parties.

Range may include – special conditions, completion notice, additional work.

4.2 Records and documents are completed and processed.

Range may include – as-builts, job cards, test sheets.

Planned review date	31 December 2022
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 August 1997	31 December 2018
Revision	2	3 August 2000	31 December 2018
Review	3	22 October 2002	31 December 2018
Review	4	20 November 2006	31 December 2018
Review	5	17 August 2017	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 if you wish to suggest changes to the content of this unit standard.