Title	**Perform pipe coating and wrapping on a steel pipeline**		
Level	**4**	**Credits**	**3**

Purpose	People credited with this unit standard are, on a steel pipeline, able to: demonstrate knowledge of methods of coating and wrapping; identify coating and wrapping defects and assess and report any associated defects or faults; and coat and wrap a steel pipeline.

Classification	Gas Industry > Gas Network Construction

Available grade	Achieved

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 the:
Health and Safety at Work Act 2015;
Health and Safety in Employment (Pipelines) Regulations 1999;
Resource Management Act 1991;
AS 2885.1-2018 *Pipelines – Gas and liquid petroleum Design and construction*;
AS/NZS 4645.2:2018 *Gas distribution networks – Steel pipe systems*;
and any subsequent amendments and replacements.

4 References
Australian standards (AS) may be found at www.standards.org.au;
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 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. *Manufacturer Safety Data Sheet* (MSDS) refers to an informational document provided by the manufacturer regarding the safety and handling procedures and precautions for materials used in the workplace.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of methods of steel pipeline coating and wrapping.

Performance criteria

1.1 Reasons for coating and wrapping steel pipelines are described.

Range cathodic protection, corrosion protection.

1.2 Types of steel pipeline coating and wrapping are described.

Range may include – coal tar enamel, heat shrink sleeve, extruded polyethylene, fusion bonded epoxy, poly vinyl chloride, mastic tape systems, petroleum tape, epoxy;
evidence of five types are required.

1.3 Potential hazards and controls associated with pipe coating and wrapping operations are described.

Range hazards may include – personal injury, stray voltage, confined space, excavations, environmental waste, asbestos, chemicals; controls may include – MSDS, approved waste disposal, safe access and egress, personal protective equipment, earthing, asbestos removal.

1.4 Damaged or disbonded coatings are identified.

1.5 Preparation of pipework surface for coating and wrapping are described.

Range power tool cleaning, sand blasting, wire brushing, scraping, solvent cleaning, heating and drying, surface priming, use of fillers.

Outcome 2

Identify coating and wrapping defects and assess and report any associated defects or faults on a steel pipeline.

Performance criteria

2.1 Damaged or disbonded coatings and wrappings are identified and removed.

2.2 Defects and faults on a steel pipeline associated with the coating or wrapping defect are assessed and reported.

Range may include – uniform corrosion, galvanic corrosion pitting, weld defect, dent, gouge.

Outcome 3

Coat and wrap a steel pipeline.

Performance criteria

3.1 Pipes are prepared for coating and wrapping.

Range may include – power tool cleaning, sand blasting, wire brushing, scraping, solvent cleaning, heating and drying, surface priming, use of fillers.

3.2 Pipes are wrapped and coated.

3.3 The finished coating and wrapping is tested for integrity.

Range may include – holiday detection, cathodic protection survey, coating inspector.

3.4 Waste materials are disposed of.

3.5 Documentation is completed.

Range may include – work orders, permits, job cards, reports, records, as-built drawings, follow-up actions.

Planned review date	31 December 2025

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	6 February 1997	31 December 2018
Revision	2	3 August 2000	31 December 2018
Review	3	24 January 2002	31 December 2018
Review	4	22 May 2009	31 December 2020
Review	5	17 August 2017	31 December 2023
Revision	6	30 August 2018	31 December 2023
Review	7	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 if you wish to suggest changes to the content of this unit standard.