

Field Engineering and Technology**Review, Revision and Rollover of *Gas Industry* unit standards**

Subfield	Domain	ID
Gas Industry	Gas Marketing, Business and Administration	11327, 11329, 11331, 11335, 20850, 20863, 24712, 24713, 24714, 24716, 24717, 24718, 24719, 24722, 24723, 25316, 25518, 25519
	Gas Measurement	12450, 12455, 12456, 19544, 19545, 23084, 23085
	Gas Network Construction	10968, 10969, 10972, 10974, 10975, 10981, 10982, 10983, 10984, 10986, 10988, 10992, 10993, 10994, 10995, 19546, 19547, 23086, 23087, 25607, 25608, 25609, 25611
	Gas Network Operations	11326, 11328, 12497, 12498, 12501, 12502, 12503, 12504, 12505, 12507, 12509, 12510, 12518, 12519, 12520, 12521, 12523, 12524, 12525, 12526, 17690, 19543, 19549, 19550, 19551, 19552, 19554, 19555, 19556, 19557, 19558, 19559, 19560, 20590, 23088, 23089, 23090
	Gas Network Planning and Development	12437, 12438, 12439, 12440, 12441, 12457
	Gas Transmission Operations	9541, 9543, 9546, 9547, 9548, 9550, 9551, 9554, 9555, 9569, 9578, 9579, 18415, 18416, 18417, 18418, 18419, 18420, 18421, 19541, 19542, 25314, 25315
	Gas Utilisation Engineering	12442, 12443, 12444, 12445, 12446, 12447, 12448, 12449

MITO New Zealand Incorporated (MITO) has completed the review, revision and rollover of the unit standards listed above. The standards that were reviewed are indicated in **bold**.

Date new versions published

August 2017

Planned review date for reviewed unit standards
Planned review date for revised and rolled over unit standards

December 2022
December 2019

Summary

Following the listing of the New Zealand qualifications in the gas industry and development of new standards linked to them, it became necessary to revise or review the existing gas industry standards.

Unit standards were reviewed where there was a likelihood that they would continue to be used in the environment of the new qualifications. Other standards were revised and

rolled over for review later, depending on current use in the meantime.

The review of these standards has resulted in updated outcomes and evidence requirements that reflect current industry practice, and align the required skills and knowledge with the Graduate Profile Outcomes of the New Zealand qualifications for the gas sector.

MITO's gas industry working group has endorsed the changes made to the reviewed standards, and the development of new standards.

Main changes

Reviewed unit standards

- Purpose statements, guidance information, outcomes, performance criteria, and range statements were amended to ensure they are accurate and fit for purpose, and to ensure clarity for users.
- References were updated.
- The level of 30 standards was adjusted to provide a better match with the NZQF Level Descriptors.
- The credits of 10 standards were adjusted to reflect the time required for learning and assessment.
- Titles were amended to better reflect the content.
- 21 new standards were developed; 20 of these replace 47 standards that have been designated expiring; one is new. Some of the replacement relationships mean that new standards are in different domains to the replaced standards.
- Unit standards 9541, 18419 and 25609 were designated expiring and will not be replaced because they cover skills and knowledge that is no longer required by industry or is covered in other existing unit standards.
- A last date for assessment for superseded versions of reviewed unit standards was specified.

Revised and rolled over unit standards

- 26 standards were revised and rolled over with no change to classification, title, level, or credits.
- References were updated.
- The planned review date was extended to 31 December 2019.

Category C and D unit standards will expire at the end of December 2020

The last date for assessment of superseded versions of category B unit standards is 31 December 2018

Impact on existing accreditations

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Domain	Gas Measurement	4	Standard	12456	5
	Gas Network Construction	4	Standards	10972, 10983, 30374	5
	Gas Network Operations	4	Standards	12509, 19552, 23090, 30384, 30385	5
	Gas Transmission Operations	4	Standards	18418, 18421	5
5		Standards	30380	3	
				30379	4
Standard	25608	4	Standard	30374	5

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Gas Industry

ID	Domain	Title	Level	Credit	Review Category
12442	Gas Utilisation Engineering	Identify the sources, origin, basic composition, and properties of gas	2	3	C
12524	Gas Network Operations	Demonstrate knowledge of gas properties and characteristics	4	2	C
17690	Gas Network Operations	Identify potential hazards of and safety precautions for working with live reticulated gas	2	6	C
30367	Gas Network Operations	Demonstrate knowledge of gas, and the risks and safety precautions for working with live gas	3	6	
12520	Gas Network Operations	Demonstrate knowledge of a gas distribution network	2	4	C
12521	Gas Network Operations	Demonstrate knowledge of pressure in a gas distribution network	2	4	C
19541	Gas Transmission Operations	Demonstrate knowledge of components on a gas transmission pipeline system	2	3	C
19542	Gas Transmission Operations	Demonstrate knowledge of gas transmission pipeline networks and pipelines	2	4	C
30370	Gas Network Operations	Demonstrate knowledge of gas pipelines and networks	2	10	

ID	Domain	Title	Level	Credit	Review Category
9551	Gas Transmission Operations	Carry out gas transmission pipeline pigging	3	8	C
23087	Gas Network Construction	Pig a pipeline in a gas network	4	4	C
30376	Gas Network Construction	Pig a gas pipeline	4	4	
12450	Gas Measurement	Demonstrate knowledge of gas meters and correctors	2	3	C
23084	Gas Measurement	Read and interpret gas metering equipment	3	4	C
23088	Gas Network Operations	Demonstrate knowledge of standard gas pressure control equipment	3	8	C
30381	Gas Measurement	Read and interpret gas metering equipment	3	15	
12510	Gas Network Operations	Install and change domestic meters and regulators in a gas distribution network	3	6	C
23085	Gas Measurement	Describe the storage, handling, transporting, and fitting of gas meters up to 25 cubic metres capacity	2	2	C
30382	Gas Measurement	Install and change low capacity gas measurement systems in a gas network	3	8	
9548	Gas Transmission Operations	Locate pipelines in a gas transmission environment	3	3	C
10992	Gas Network Construction	Use pipe and cable locators in a gas distribution network	3	3	C
19551	Gas Network Operations	Inspect and advise on works in the vicinity of a gas distribution network	3	3	C
30379	Gas Network Operations	Locate pipes and cables and advise on third party works in the vicinity of a gas pipeline	4	6	
9543	Gas Transmission Operations	Install and maintain pipeline safety signs and aerial markers in a gas transmission environment	3	2	C
10994	Gas Network Construction	Read and interpret plans and drawings and complete a mark-out in a gas distribution network	2	4	C
11326	Gas Network Operations	Interpret symbols, signs, and terminology specific to a gas distribution network	2	2	C
30380	Gas Network Operations	Interpret and use gas terminology, plans and drawings to complete a mark-out in a gas network	3	6	

Engineering and Technology > Gas Industry > Gas Marketing, Business and Administration

ID	Title	Level	Credit	Review Category
11327	Identify public relations roles and community liaison responsibilities in the gas industry Identify community concerns and respond to enquiries relating to gas industry operations and activities	2 3	4	B
11329	Demonstrate knowledge of the New Zealand gas industry	2	2	B
11335	Demonstrate knowledge of and use a data processing and billing system in the gas industry	3 4	8	B
20850	Prepare and process applications for gas connections	3	6	B
24712	Perform administrative procedures for reticulated gas connections, disconnections, reconnections, and relocations	3 4	10 8	B
24713	Demonstrate knowledge of gas hazards, signs, symbols, and terminology for the gas retail industry	2	5	C
24718	Describe hazards of reticulated gas, the fire triangle, and actions to eliminate sources of ignition in the gas industry	2	6	C
30386	Demonstrate knowledge of gas, gas safety, signs, symbols and terminology for gas industry support	3	4	
24714	Demonstrate knowledge of the gas industry in relation to customer support and administration	2	3	C
24719	Demonstrate knowledge of gas retail business relationships, stakeholders, and their concerns with industry activities	3	6	C
30387	Demonstrate knowledge of business operations and relationships and regulation in the gas industry	4	8	
24716	Explain and manage gas emergencies and restore the system from a gas distribution contact centre	4	12	C
24723	Demonstrate knowledge of gas emergencies and coordinate the response to a gas emergency from a contact centre	3	12	C
30375	Coordinate the response to a gas emergency incident from a contact centre	4	8	
24717	Demonstrate knowledge of applications, quotations, and documentation for gas connections	3	8 6	B
24722	Respond to gas queries from a contact centre and describe gas appliance faults, incidents and events, and action to take Respond to gas safety, GMS, and network queries and describe the effects of major gas events	3 4	8	B

Engineering and Technology > Gas Industry > Gas Measurement

ID	Title	Level	Credit	Review Category
12456	Install, commission, and maintain electronic gas flow correctors	4 5	8 5	B

Engineering and Technology > Gas Industry > Gas Network Construction

ID	Title	Level	Credit	Review Category
10968	Decommission and disconnect a main in a gas distribution network	4	8	C
10969	Decommission and disconnect services in a gas distribution network	3	8	C
30372	Decommission and disconnect mains and services in a gas network	4	15	
10972	Perform hydrostatic tests on mains and services in a gas distribution network Perform hydrostatic tests on gas mains and services	4 5	7	B
10974	Use stopple equipment on steel gas pipes	4	10	C
10986	Use flow-stopping bags in a gas distribution network	4	10	C
25608	Carry out a flow stopping operation on a live gas main	4	12	C
30374	Carry out a flow stopping operation on a live gas pipeline	5	20	
10975	Squeeze off a polyethylene pipe in a gas distribution network Squeeze off a polyethylene pipe in a gas network	3 4	6	B
10981	Fit mechanical couplings in a gas distribution network Fit mechanical couplings in a gas network	3	3	B
10982	Demonstrate knowledge of steel welding on a gas distribution network Demonstrate knowledge of steel welding in a gas network	4	6	B
10983	Hot tap, test, and drill a steel pipe in a gas distribution network Hot tap, test, and drill a steel pipe in a gas network	4 5	12	B
10984	Cut, thread, and join steel pipes in a gas distribution network Cut, thread, and join steel pipes in a gas network	2 3	3	B
10988	Insert a polyethylene pipe into a casing pipe in a gas distribution network Insert a polyethylene pipe into a casing pipe in a gas network	4	6	B
10993	Use a Holiday detector in a gas distribution network Use a Holiday detector on a steel gas pipe	2 3	2	B

ID	Title	Level	Credit	Review Category
10995	Draft information for as-built drawing in a gas distribution network Draft information for as-built drawings for a gas network	2 3	3	B
11328	Gain approvals and implement notification procedures for works in a gas distribution network Gain approvals and implement notification procedures for works in a gas network	3	3	B
19546	Test, connect, and purge a main in a gas distribution network	3	8	C
19547	Connect, test, and purge a service in a gas distribution network	3	8	C
30373	Connect, test, and purge mains and services in a gas network	4	8	
23086	Lay a gas pipe in a gas distribution network Lay a gas pipeline in an open trench	3	6	B
25607	Demonstrate knowledge of flow stopping equipment and operations in a gas distribution network	3	6	C
25611	Demonstrate knowledge of stopple equipment and operations in a gas distribution network	3	3	C
30371	Demonstrate knowledge of flow stopping equipment and operations in a gas network	4	6	
25609	Demonstrate knowledge of hydrostatic testing equipment and operations in a gas distribution network	3	3	D
30377	Demonstrate knowledge of intelligent pigging on a gas pipeline	4	3	New

Engineering and Technology > Gas Industry > Gas Network Operations

ID	Title	Level	Credit	Review Category
12497	Demonstrate knowledge of legislation and documentation relating to gas network operations Demonstrate knowledge of legislation, regulation and documentation relating to gas industry operations	5	10	B
12498	Produce, monitor, and maintain operational and safety procedures in a gas distribution environment Produce and monitor operational and safety procedures for a gas worksite	6 5	8	B
12502	Use pressure gauges and recorders in a gas distribution network Use pressure gauges and monitoring equipment in a gas network	2 3	3 4	B
12503	Respond to and locate gas escapes in a gas distribution network Respond to and locate gas escapes in a gas network	3 4	20 15	B

ID	Title	Level	Credit	Review Category
12504	Perform and record walking leakage surveys in a gas distribution network	3	6	C
12505	Perform and record vehicle leakage surveys in a gas distribution network	3	7	C
30368	Perform and record leakage surveys in a gas network	4	6	
12507	Use gas leakage detection equipment on reticulated gas networks Use hand-held gas leakage detection equipment in a gas network	3	5	B
12509	Install and test cathodic protection in a gas distribution network Install and test cathodic protection points in a gas network	4 5	7	B
12518	Check and maintain in-line valves in a gas distribution network Check and maintain in-line valves in a gas pipeline	3 4	3	B
12519	Demonstrate knowledge of odourisation in a gas distribution network Demonstrate knowledge of odourisation in a gas network	3	6 3	B
12526	Use fresh air distance breathing apparatus in a gas distribution network Use fresh air distance breathing apparatus in a gas network	3	3	B
19543	Audit worksite systems in a gas distribution network Audit worksite systems in a gas network	3 4	4	B
19549	Make temporary repairs of gas escapes in a gas distribution network Make temporary repairs of gas escapes in a gas network	3 4	5 10	B
19550	Restore supply after interruption to domestic gas consumer in a gas distribution network	3	5	C
23089	Relight gas appliances safely after disruption of supply from a gas network	3	12	C
30383	Restore supply and recommission a low capacity installation after an interruption	4	12	
19552	Stabilise a gas emergency site and deal with a gas-filled building	4 5	16 20	B
19554	Demonstrate knowledge of advanced gas pressure control equipment	4	16	C
19556	Assemble, install, test, and commission an advanced gas pressure reducing and metering station	4	15	C
30384	Assemble, install, test, and commission a high capacity gas pressure control and metering station	5	20	

ID	Title	Level	Credit	Review Category
19555	Assemble, install, test, and commission a standard gas pressure reducing and metering station Assemble, install, test, and commission a low capacity gas pressure control and metering station	3 4	10	B
19557	Perform maintenance on a standard gas pressure reducing and metering station Perform maintenance on a low capacity gas pressure control and metering station	3 4	10	B
19558	Troubleshoot and rectify faults on an advanced gas pressure reducing and metering station	4	30	C
19559	Perform maintenance on an advanced gas pressure reducing and metering station	4	25	C
30385	Maintain, troubleshoot and rectify faults on a high capacity gas pressure control and metering station	5	30	
19560	Troubleshoot and rectify faults on a standard gas pressure reducing and metering station Troubleshoot and rectify faults on a low capacity gas pressure control and metering station	3 4	20 15	B
20590	Test gas for odour level and odorant concentration in a gas network	3 4	3	B
23090	Demonstrate knowledge of designing gas regulator and metering stations in a gas distribution network Demonstrate knowledge of gas pressure control and metering station design	4 5	6	B

Engineering and Technology > Gas Industry > Gas Network Planning and Development

ID	Title	Level	Credit	Review Category
12437	Use and maintain electronic mapping information for a gas distribution network Use and maintain electronic mapping information for a gas network	3	6	B

Engineering and Technology > Gas Industry > Gas Transmission Operations

ID	Title	Level	Credit	Review Category
9541	Use acoustical leak detection equipment on a gas transmission pipeline system	4	2	D
9546	Carry out aerial inspection of a gas transmission pipeline system	3	2	C
9554	Inspect gas transmission pipeline easements and pipeline systems	3	3	C
30369	Inspect gas pipeline environments, cased crossings and aerial spans	4	6	

ID	Title	Level	Credit	Review Category
9547	Demonstrate knowledge of protecting under depth gas transmission pipelines	4	4	C
9555	Identify methods of prevention and control of, and monitor and control, erosion on a gas transmission pipeline system	4	8	C
30378	Demonstrate knowledge of erosion prevention and protecting under depth gas pipelines	4	6	
9550	Perform basic pipe wrapping on a steel pipeline Perform pipe coating and wrapping on a steel pipeline	4	3	B
9569	Operate odorant systems in a gas transmission environment Operate odorant systems in a gas network	3 4	4	B
9578	Carry out a Direct Current Voltage Gradient (DCVG) survey in the gas transmission industry Carry out a Direct Current Voltage Gradient (DCVG) survey on a steel gas pipe	4	3	B
18415	Demonstrate knowledge of gas filtration, and gas filtration and ancillary equipment, in the gas transmission industry Demonstrate knowledge of gas filtration, and gas filtration and ancillary equipment in the gas industry	3 4	3	B
18416	Operate and maintain gas-fired water bath heater equipment on a gas transmission pipeline system Operate and maintain gas-fired water bath heater equipment in a gas network	3 4	4	B
18418	Operate and maintain main line valves on a gas transmission pipeline system Operate and maintain main line valves in a gas network	4 5	6	B
18419	Operate and maintain gas filtration equipment on a gas transmission pipeline system	4	3	D
18421	Demonstrate knowledge of the application of compression equipment in the gas transmission industry Demonstrate knowledge of the application of compression equipment in the gas industry	4 5	6	B
25314	Control excavations near a gas transmission pipeline system Control excavations in the vicinity of a high pressure gas pipeline	4	4	B
25315	Isolate and tag plant and equipment, and remove danger tags, on a gas transmission pipeline system Isolate and tag plant and equipment, and remove danger tags, in a gas network	3 4	5 3	B