

**FIELD            ENGINEERING AND TECHNOLOGY****Review, Revision and Rollover of *Gas Industry* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>Id</b>
Gas Industry	Gas Marketing, Business and Administration	11326, 11327, 11328, 11331, 11335, 19543
	Gas Measurement	12450, 12453-12456, 19544, 19545, 20441
	Gas Network Construction	<b>10968, 10969</b> , 10972, 10974, <b>10975</b> , 10977, 10980-10983, <b>10984</b> , 10985, <b>10986-10988</b> , 10992-10994, <b>10995</b> , 19546-19549
	Gas Network Operations	12497, 12498, 12501-12505, 12507, 12509, 12510, 12518-12526, 17690, 19550-19560, <b>20590</b>
	Gas Network Planning and Development	<b>12437, 12438</b> , 12439, <b>12440, 12441, 12457</b>
	Gas Utilisation Engineering	<b>12442-12449</b>

The NZ Extractive Industries Training Organisation has completed the review and revision of the unit standards listed above. Unit standards in **bold** have been revised and rolled over; the remaining standards were reviewed.

**Date new versions published****November 2006****Planned review dates**

Gas Marketing, Business and Administration	<b>2008</b>
Gas Utilisation Engineering	<b>2008</b>
Other domains in Gas Industry	<b>2011</b>

**Summary of review and revision consultation process**

This review was prompted by the unit standards reaching their planned review date, the industry's need to ensure that they were relevant to both types of reticulated gas, and to align the unit standards and qualifications with the Gas Association of New Zealand (GANZ) competency requirements. The outcome of the review has reflected the need to include people from other trades who do work for the gas industry. A meeting of gas industry representatives in July 2005 determined the focus, extent, and depth of the review, and nominated technical advisors for specific unit standards. Review meetings of technical advisors, providers, industry, and assessors were held in October, November, and December 2005 and the unit standards were distributed for wider industry feedback in January 2006.

Because the NZ Extractive Industries Training Organisation was at this time consolidating its AMAPs, the opportunity was taken to transfer all the gas industry unit standards from AMAP 0124 to AMAP 0114.

All unit standards in the Gas Marketing, Business and Administration domain have been reviewed. All unit standards in the Gas Measurement and Gas Network Operations domains have been reviewed except unit standard 20590, which was revised and rolled over. Unit standards in the Gas Utilisation Engineering and Gas Network Planning and Development domains have been revised and rolled over except for unit standard 12439, which was reviewed. Unit standards in the Gas Network Construction domain have been either reviewed, or revised and rolled over (shown in bold in the table above). Revised and rolled over unit standards have been amended to show the NZ Extractive Industries Training Organisation as the Standard Setting Body, update references, and make minor changes for consistency with other unit standards in these domains.

### **Main changes resulting from the review**

- Unit standards 11326, 11328, 19543, and 19549 have moved to the Gas Network Operations domain
- Unit standards 12453 and 12454 have been replaced by unit standard 23084 and the level increased from 2 to 3
- Unit standard 20441 has been replaced by unit standard 23085 to reflect current practice
- Unit standards 10977 and 19548 have been replaced by unit standard 23086, and unit standards 12522 and 19553 have been replaced by unit standard 23088, to eliminate over assessment
- New unit standards 23087, 23089, and 23090 have been developed to match GANZ competency requirements
- Credits for unit standards 19555 and 19557 have decreased from 15 to 10, for unit standard 19558 from 34 to 30, and for unit standard 19560 from 34 to 20, and credits for unit standard 19554 have increased from 12 to 16
- The level of unit standards 12503 and 19560 decreased from 4 to 3, and the level of unit standard 12510 increased from 2 to 3
- Titles of unit standards 10982, 11327, 11335, 12507, 12520, 12523, 12455, 17960, 19549, and 19555-19560 have been changed
- Special notes have been standardised and references have been updated
- Elements, performance criteria, and range statements have been amended to match current best practice and to meet criteria for registration.

### **Unit standards categorised as category C expire at the end of December 2008.**

#### **Impact on existing provider accreditations**

No field accreditations have been granted. The unit standards changing domain have no impact on subfield accreditations or on the provider with domain accreditations as the provider has accreditation for all the domains affected. Increases in level and replacement unit standards have no impact on current providers.

#### **Impact on Accreditation and Moderation Action Plan (AMAP)**

All unit standards except 11326, 11327, 11329, and 11331 have been transferred from AMAP 0124 to AMAP 0114. The exception reflects those standards that are already included on 0114.

## Impact on existing qualifications

Qualifications that contain the reviewed standards or classifications are tabled below.

<b>Affected</b>	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
<b>Not materially affected</b>	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following NZ Extractive Industries Training Organisation qualifications are impacted by the outcome of this review and have been reviewed concurrently with the unit standards. Where the qualification contains affected standards these have been shown in **bold**.

Qualification title	Classification or standard in the qualification
National Certificate in Gas Measurement (Level 3) [Ref: 0399]	11335, <b>12510</b> , <b>12454</b> , 12455, 12456
National Certificate in Gas Network Operations (Leakage Control) (Level 3) [Ref: 0400]	<b>12503</b> , 12507, <b>12510</b> , <b>12522</b>
National Certificate in Gas Network Operations (Gas Pressure Control) (Level 4) [Ref: 0401]	<b>19554</b> , 19556, <b>19558</b> , 19559, <b>19560</b>
National Certificate in Gas Network Operations (Operations and Maintenance) (Level 3) [Ref: 0885]	11328, <b>12503</b> , 12507, <b>12510</b> , <b>12522</b> , <b>19553</b> , <b>19555</b> , <b>19557</b> , <b>19560</b>
National Certificate in Gas Industry (Gas Distribution) (Level 2) [Ref: 1020]	11326, 11327, 12520, 17690
National Certificate in Gas Network Operations (Gas Pressure Control) (Level 3) [Ref: 1021]	<b>12453</b> , <b>12454</b> , 12507, <b>12510</b> , <b>12522</b> , <b>19553</b> , <b>19554</b> , <b>19555</b> , <b>19557</b> , <b>19560</b>
National Certificate in Gas Network Construction (Pipelaying) (Level 3) with strands in Polyethylene Pipelaying and Steel Pipelaying [Ref: 1022]	11328, <b>10977</b> , <b>19548</b>
National Certificate in Gas Network Operations (Operations and Maintenance) (Level 4) [Ref: 1023]	<b>10977</b> , 12456, <b>19548</b> , 19543, 19549, <b>19560</b>

The following NZ Extractive Industries Training Organisation qualifications are also impacted by the outcome of this review and will be reviewed in the second half of 2006. Affected standards have been shown in **bold**.

Qualification title	Classification or standard in the qualification
National Certificate in Gas Industry (Gas Transmission) (Level 3) [Ref: 0978]	<b>12522</b> , <b>19553</b> , <b>19554</b> , <b>19555</b> , <b>19557</b>
National Certificate in Gas Industry (Gas Transmission) (Level 4) with strands in Pipeline Operation, and Instrumentation and Electrical [Ref: 0979]	12456, 19556, <b>19558</b> , 19559, <b>19560</b>

The following NZ Extractive Industries Training Organisation qualification is not materially affected by the changes. It will be updated when it is next reviewed.

Qualification title	Standard in the qualification
National Certificate in Gas Industry (Gas Engineering) with strands in Gas Network Operations, Gas Network Planning and Development, and Gas Utilisation [Ref: 0635]	10982, 11326, 11327, 12520, 12523

The following qualification is also affected by the outcome of this review. The standard setting body (SSB) has been advised that it requires revision.

Qualification title	Classification or standard in the qualification	SSB Name
National Certificate in Civil Works and Services (Road Opening - Trenching) with optional strands in Electricity Supply, Gas Distribution, and Water Services [Ref: 1000]	<b>10977</b> , 12520, 17690	InfraTrain New Zealand

### Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

#### Key to review category

- A** Dates changed, but no other changes are made - the replacement standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same - the replacement 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

#### Subfield Gas Industry

Id	Domain	Title	Level	Credit	Review Category
11326	Gas Marketing, Business and Administration <b>Gas Network Operations</b>	Interpret symbols, signs, and terminology specific to a gas distribution network	2	2	B
11328	Gas Marketing, Business and Administration <b>Gas Network Operations</b>	Gain approvals and implement notification procedures for works in a gas distribution network	3	3	B
19543	Gas Marketing, Business and Administration <b>Gas Network Operations</b>	Audit worksite systems in a gas distribution network	3	4	B

Id	Domain	Title	Level	Credit	Review Category
19549	Gas Network Construction	Make temporary repairs of gas escapes on pipelines in a gas distribution network	3	5	B
	<b>Gas Network Operations</b>	<b>Make temporary repairs of gas escapes in a gas distribution network</b>			

Domain Gas Marketing, Business and Administration

Id	Title	Level	Credit	Review Category
11327	Identify public relations roles and community liaison responsibilities in a gas environment <b>Identify public relations roles and community liaison responsibilities in the gas industry</b>	2	4	B
11331	Demonstrate knowledge of gas use and equipment in a commercial environment	4	12	B
11335	Use and maintain gas meter information data processing and billing systems <b>Demonstrate knowledge of, use, and maintain a gas data processing and billing system</b>	3	8	B

Subfield Gas Industry  
Domain Gas Measurement

Id	Title	Level	Credit	Review Category
12450	Demonstrate knowledge of gas meters and correctors	2	3	B
12453 and 12454	Read and interpret domestic gas meter data Read and interpret commercial gas metering equipment	2	2	C
<b>23084</b>	<b>Read and interpret gas metering equipment</b>	<b>3</b>	<b>4</b>	
12455	Install, maintain, and commission mechanical gas flow correctors in a gas distribution network environment <b>Install, commission, and maintain mechanical gas flow correctors</b>	4	10	B
12456	Install, maintain, and commission electronic gas flow correctors <b>Install, commission, and maintain electronic gas flow correctors</b>	4	8	B
19544	Test gas meters using a bell prover	3	12	B
19545	Test gas meters using a transfer prover	4	12	B
20441 <b>23085</b>	Demonstrate knowledge of storing, handling, and transporting domestic gas meters <b>Describe the storage, handling, transporting, and fitting of gas meters up to 25 cubic metres capacity</b>	2	2	C

Subfield Gas Industry  
Domain Gas Network Construction

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
10972	Perform hydrostatic tests on mains and services in a gas distribution network	3	7	B
10974	Use stopple equipment on steel gas pipes	4	10	B
10977 and 19548	Lay a service in a gas distribution network	3	6	C
<b>23086</b>	Lay a gas main in a gas distribution network <b>Lay a gas pipe in a gas distribution network</b>	<b>3</b>	<b>6</b>	C
10980	Perform electrofusion jointing in a gas distribution network	3	3	B
10981	Fit mechanical couplings in a gas distribution network	2	3	B
10982	Demonstrate knowledge of steel welding techniques on a gas distribution network <b>Demonstrate knowledge of steel welding on a gas distribution network</b>	4	6	B
10983	Hot tap, test, and drill a steel pipe in a gas distribution network	4	12	B
10985	Replace sections of polyethylene pipe and install fittings in a gas distribution network	3	8	B
10992	Use pipe and cable locators in a gas distribution network	3	3	B
10993	Use a holiday detector for coating faults on steel pipes in a gas distribution network <b>Use a Holiday detector in a gas distribution network</b>	2	2	B
10994	Read and interpret plans and drawings and complete a mark-out in a gas distribution network	2	4	B
19546	Perform a pneumatic pressure test and purge a main in a gas distribution network	3	8	B
19547	Perform a pneumatic pressure test and purge a service in a gas distribution network	3	6	B
<b>23087</b>	<b>Pig a pipeline in a gas network</b>	<b>3</b>	<b>4</b>	<b>New</b>

Subfield Gas Industry  
Domain Gas Network Operations

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
12497	Demonstrate knowledge of legislation and documentation relating to gas network operations	5	10	B
12498	Produce, monitor, and maintain operational and safety procedures in a gas distribution environment	6	8	B
12501	Control and manage emergency incidents in a gas distribution network	6	12	B
12502	Use pressure gauges and recorders in a gas distribution network	2	3	B
12503	Respond to and locate gas escapes in a gas distribution network	4 <b>3</b>	20	B

Id	Title	Level	Credit	Review Category
12504	Perform and record walking leakage surveys in a gas distribution network	3	6	B
12505	Perform and record vehicle leakage surveys in a gas distribution network	3	7	B
12507	Use gas leakage detection equipment on natural gas <b>Use gas leakage detection equipment on reticulated gas networks</b>	3	5	B
12509	Install and test cathodic protection in a gas distribution network	4	7	B
12510	Install and change domestic meters and regulators in a gas distribution network	2 <b>3</b>	6	B
12518	Check and maintain in-line valves in a gas distribution network	3	3	B
12519	Demonstrate knowledge of odorisation in a gas distribution network	3	6	B
12520	Demonstrate knowledge of gas distribution networks <b>Demonstrate knowledge of a gas distribution network</b>	2	4	B
12521	Demonstrate knowledge of pressure in a gas distribution network	2	4	B
12522 and 19553	Demonstrate a basic knowledge of gas regulators	2	3	C
<b>23088</b>	Demonstrate knowledge of standard gas pressure control equipment <b>Demonstrate knowledge of standard gas pressure control equipment</b>	3 <b>3</b>	12 <b>8</b>	C
12523	Implement maintenance plans and procedures for a gas network <b>Prepare, implement, and monitor asset maintenance plans for a gas distribution network</b>	6	10	B
12524	Demonstrate knowledge of gas properties and characteristics	4	2	B
12525	Select gas pressure control equipment for use in a gas distribution network	5	8	B
12526	Use fresh air distance breathing apparatus in a gas distribution network	3	3	B
17690	Identify potential hazards of and safety precautions for working with live natural gas <b>Identify potential hazards of and safety precautions for working with live reticulated gas</b>	2	6	B
19550	Restore supply after interruption to domestic gas consumer in a gas distribution network	3	5	B
19551	Inspect and advise on works in the vicinity of a gas distribution network	3	3	B

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
19552	Stabilise a gas emergency site and deal with a gas-filled building	4	16	B
19554	Demonstrate knowledge of advanced gas pressure control equipment	4	12 <b>16</b>	B
19555	Assemble, install, test, and commission standard gas pressure reducing and metering station <b>Assemble, install, test, and commission a standard gas pressure reducing and metering station</b>	3	15 <b>10</b>	B
19556	Assemble, install, test, and commission advanced gas pressure reducing and metering station <b>Assemble, install, test, and commission an advanced gas pressure reducing and metering station</b>	4	15	B
19557	Perform routine maintenance on standard gas pressure reducing and metering stations <b>Perform maintenance on a standard gas pressure reducing and metering station</b>	3 <b>3</b>	15 <b>10</b>	B
19558	Troubleshoot and rectify faults on advanced gas pressure reducing and metering stations <b>Troubleshoot and rectify faults on an advanced gas pressure reducing and metering station</b>	4	34 <b>30</b>	B
19559	Perform routine maintenance on advanced gas pressure reducing and metering stations <b>Perform maintenance on an advanced gas pressure reducing and metering station</b>	4	25	B
19560	Troubleshoot and rectify faults on standard gas pressure reducing and metering stations <b>Troubleshoot and rectify faults on a standard gas pressure reducing and metering station</b>	4 <b>3</b>	34 <b>20</b>	B
<b>23089</b>	<b>Relight gas appliances safely after disruption of supply from a gas network</b>	<b>3</b>	<b>12</b>	<b>New</b>
<b>23090</b>	<b>Demonstrate knowledge of designing gas regulator and metering stations in a gas distribution network</b>	<b>4</b>	<b>6</b>	<b>New</b>

Domain      Gas Network Planning and Development

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
12439	Plan and design a gas network system	5	10	B