

Title	Demonstrate knowledge of theory for registration of gasfitters		
Level	4	Credits	10

Purpose	<p>This unit standard is for people who work, or intend to work, in the gasfitting industry.</p> <p>This unit standard covers the theory relating to the assessment required for registration as a gasfitter. To achieve this unit standard candidates can be assessed off-job and must pass the Gasfitter Registration Examination, which is based on the competencies set out in the Plumbers, Gasfitters, and Drainlayers Board (Gasfitting Registration and Licensing) Gasfitting Competencies Amendment Notice 2024 and described in the Examination Guide No. 9193 Gasfitter.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> – workplace requirements to meet the PGDB Gasfitter Registration Examination (reference 9193); – knowledge of materials and gasses, planning, and processes, used in gasfitting work; – gasfitting systems; and – sustainable practices used in gasfitting work.
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Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
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Available grade	Achieved
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Prerequisites	Candidates who are working within the jurisdiction of the Plumbers, Gasfitters, and Drainlayers Board must hold a current gasfitting limited certificate or exemption for gasfitting under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.
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Guidance Information

- 1 Legislation and regulations relevant to this unit standard include but are not limited to the:
AS/NZS 5601:1&2:2013 set Gas installations Parts 1 and 2;
AS/NZS 1596:2014 The storage and handling of LP Gas;
AS/NZS 3604:2011 Timber framed buildings – Holes and checks in studs, plates and joists; available at <http://www.standards.govt.nz>;
Building Act 2004;

Excavation Safety Good Practice Guidelines (Wellington: Worksafe, 2016) (available at <https://worksafe.govt.nz>);

Gas Act 1992;

Gas (Safety and Measurement) Regulations 2010;

Health and Safety at Work Act 2015;

New Zealand Building Code Handbook, Ministry of Business, Innovation and Employment;

- B2: Durability

- E2: External moisture

- G4: Ventilation

- G11: Gas an energy source;

NZS 5266:2014 Safety of gas appliances;

Plumbers, Gasfitters, and Drainlayers Act 2006;

The Building Code, (Building Regulations 1992, Schedule 1);

Acceptable Solutions and Verification Methods, published by Ministry of Business, Innovation, and Employment at <https://www.building.govt.nz/>;

Underground services - Guide for safety with underground services (Wellington: Department of Labour, 2002) (available at <https://worksafe.govt.nz>); and, all subsequent amendments and replacements.

2 Range

To be eligible for registration as a gasfitter, candidates must complete a competency-based programme of learning approved by the Plumbers, Gasfitters, and Drainlayers Board (PGDB) and must pass the PGDB Gasfitter Registration Examination (reference 9193), which is based on the competencies set out in the Plumbers, Gasfitters, and Drainlayers Board (Gasfitting Registration and Licensing) Gasfitting Competencies Amendment Notice 2024. The examination is the only valid assessment tool for this unit standard, and credit for this unit standard may only be granted on evidence of passing the examination.

The Plumbers, Gasfitters, and Drainlayers Board (Gasfitting Registration and Licensing) Gasfitting Competencies Amendment Notice 2024 is the main reference for this examination.

3 Registration Class

From April 2025, there are registration class name changes for gasfitters.

Journeyman gasfitters are now restricted gasfitters and tradesman gasfitters are now gasfitters. Further details can be found on the PGD Board website,

https://www.pgdb.co.nz/about_the_board/news/registration-class-name-changes

4 Outcomes and performance criteria are aligned to the PGDB Plumber Registration Examination (reference 9192).

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of workplace requirements to meet the PGDB Gasfitter Registration Examination (reference 9193).

Performance criteria

- 1.1 Explain trade calculations and science, health and safety, compliance documentation in accordance with PGDB Tradesman Gasfitter registration requirements.

Range includes but is not limited to:

trade calculations and science – application of formulae, condensate, combustion and ventilation, corrosion, estimation, measurement, and calculation, flammability limits, flame characteristics, flueing, gas properties, gas rating, hydraulic principles as they relate to gas-fired water heaters, input/output efficiency calculations, laws of physics, pipe sizing;

health and safety – personal, public safety, site, environmental considerations relating to personal safety, environmental impacts, preparation of safety plans;

gasfitting as a regulated occupation – limitations on who can do or assist in doing gasfitting, requirements around carrying out gasfitting, responsibilities that apply to registered gasfitters, understanding the regulatory environment, supervising people doing gasfitting;

Compliance documentation – Acts, regulations, acceptable solutions and verification methods, alternative solutions, standards, codes of practice, guidance, manufacturers' instructions, the hierarchy and relationship between the forms of documentation, certification of gasfitting work.

Outcome 2

Demonstrate knowledge of materials and gases, planning, and processes, used in gasfitting work.

Performance criteria

- 2.1 Explain the use and limitation of products and materials, planning, and processes used in gasfitting work in accordance with PGDB Gasfitting registration requirements.

Range includes but is not limited to:

products and materials – aluminium, asbestos, black steel, brass/bronze, cast iron, copper and copper alloys, cross-linked polyethylene (X-PE), fire resistant materials, galvanised steel, mild steel, polyamide, polyethylene (PE), polypropylene (PP), polyvinylchloride (PVC), stainless steel, tools and equipment, jointing methods, designs, drawings, and specifications;

planning and processes – as-built plans, compliance documentation, materials lists, plans, schematics, design calculations, and specifications.

handling of fuel gases – types of gasses, characteristics, composition, liquid petroleum gas (LPG), butane, propane, general product, manufactured gas, natural gas, gas storage, handling and use.

Outcome 3

Demonstrate knowledge of gasfitting systems.

Performance criteria

- 3.1 Explain matters relating to gasfitting systems in accordance with PGDB Gasfitter registration requirements.

Range includes but is not limited to:
gas installations including appliances, equipment, fluing, gas reticulation, pipe sizing and pipework, seismic considerations, ventilation, space and water heating, electrical and electronics related to gas installations, and structure integrity

Outcome 4

Demonstrate knowledge of sustainable practices used in gasfitting work.

Performance criteria

- 4.1 Explain matters relating to sustainable practices in accordance with PGDB Gasfitter registration requirements.

Range: includes but is not limited to:
best environmental practice, energy efficiency, and waste minimisation.

Planned review date	31 December 2030
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 April 2015	December 2026
Review	2	26 March 2020	December 2026
Review	3	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 Waihangara Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaraarau.nz if you wish to suggest changes to the content of this unit standard.