

Title	Demonstrate knowledge of the installation and commissioning of gas appliances and associated equipment		
Level	4	Credits	10

Purpose	<p>This unit standard is for people who work in the gasfitting industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – demonstrate knowledge of general installation requirements for installing gas appliances and associated equipment; – demonstrate knowledge of specific installation requirements for installing gas appliances and associated equipment; – demonstrate knowledge of commissioning gas appliances and associated equipment; – describe the verification process of gas appliances and associated equipment in existing installations.
----------------	--

Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
-----------------------	---

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

Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
- Building Act 2004;
 - Electricity Act 1992;
 - Gas Act 1992;
 - Gas (Safety and Measurement) Regulations 2010;
 - Health and Safety at Work Act 2015;
 - Plumbers, Gasfitters, and Drainlayers Act 2006;
 - Plumbers, Gasfitters, and Drainlayers Regulations 2010.

The following standards, which are available at <http://www.standards.govt.nz>:

- AS/NZS 5601.1:2013 *Gas installations – Part 1: General installations*;
- NZS 5266:2014 *Safety of gas appliances*;
- NZS 5255:2014 A1 *Safety verification of existing gas installations*;
- NZS 3604:2011 *Timber-framed buildings*.

The following Building Code clauses, and any related Acceptable Solution and Verification Method documents, which are available at <https://www.building.govt.nz/>:

- New Zealand Building Code Clause E2 External moisture;
- New Zealand Building Code Clause G11 Gas as an Energy Source;
- New Zealand Building Code Clause H1 Energy efficiency.

Any new, amended or replacement standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

2 Definitions

Associated equipment refers to any equipment other than a gas appliance which must be installed as part of an appliance installation. May include but is not limited to – flues, ventilation, connections, valves, regulators, pressure testing points, mounting and restraints.

Gas appliances refer to gas appliances that generally have an input rating below 250MJ/h and may be electronically or manually controlled.

Job specifications refer to instructions (oral, written, graphic) and may include any of the following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements.

- 3 Credit for this unit standard does not entitle the candidate to legally perform certain electrical aspects of this work unless registered or supervised by a registered person under the provisions of the Electricity Act 1992.
- 4 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of general installation requirements for installing gas appliances and associated equipment.

Performance criteria

- 1.1 Describe the general verification requirements for the installation of gas appliances and associated equipment.

Range includes but is not limited to – verification of gas supply, air supply for safe operation, and appliance and manufacturer's installation specifications.

- 1.2 Explain the general factors that affect the selection and positioning of the appliance.

- 1.3 Explain the general factors that affect the selection and positioning of a flue.

Outcome 2

Demonstrate knowledge of specific installation requirements for gas appliances and associated equipment.

Range includes but is not limited to – a commercial cooking appliance, a domestic cooking appliance, a flued space heater, water heater, and flame effect fire.

Performance criteria

2.1 Describe the appliance specific verification requirements for each appliance.

Range includes but is not limited to – verification of gas supply, air supply for safe operation, and appliance and manufacturer's installation specification.

2.2 Explain the appliance specific factors that affect the selection and positioning of each appliance type.

2.3 Explain the appliance specific procedure for testing and connection to the gas supply.

2.4. Explain the appliance specific factors that affect the selection and positioning of flues for each appliance type.

Outcome 3

Demonstrate knowledge of commissioning gas appliances and associated equipment.

Performance criteria

3.1 Describe how gas appliance commissioning is carried out.

3.2 Describe methods of testing flues.

3.3 Describe how ventilation requirements are confirmed and calculated.

3.4 Explain the post installation documentation and customer handover process to be completed.

Range includes – operating instructions, gas certificates, maintenance and warranty requirements; may also include workplace checklists, certified designs, and endorsement certificates.

Outcome 4

Describe the verification process of gas appliances and associated equipment in existing installations.

Performance criteria

- 4.1 Describe the process for verifying the safety of gas appliances and associated equipment in existing installations in accordance with NZS 5255:2014.

Planned review date	31 December 2029
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 July 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.