

Interim New Zealand Standard

Domestic outdoor gas barbecues

Includes AS 4557:2004

NZS AS 4557(Int):2013

COMMITTEE REPRESENTATION

This New Zealand variation standard was prepared under the supervision of the P 5266 Committee, WG 4553 the Standards Council established under the Standards Act 1988.

The committee consisted of representatives of the following:

Gas Association of New Zealand

Gas Utilisation Institute

LPG Association of New Zealand

New Zealand Council of Elders

New Zealand Institution of Gas Engineers

New Zealand Retailers Association

Plumbers, Gasfitters and Drainlayers Board

The Skills Organisation

WorkSafe New Zealand – Energy Safety (previously Ministry of Business, Innovation and Employment – Energy Safety)

ACKNOWLEDGEMENT

Standards New Zealand gratefully acknowledges the contribution of time and expertise from all those involved in developing this standard.

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LATEST REVISIONS

The users of this standard should ensure that their copies of the New Zealand standards and referenced overseas standards listed in referenced documents are the latest revisions or include the latest amendments. Amendments to referenced New Zealand and Joint Australian/New Zealand Standards can be found on www.standards.co.nz

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Includes AS 4557:2004 MOD

NOTES

Foreword

This national variation interim standard was prepared by the Standards New Zealand committee P 5266, WG 4553 Gas appliance standards.

The standard has been prepared to provide modifications to the requirements set out in AS 4557 for the safety of domestic outdoor gas barbecues intended for use in New Zealand only. It provides one set of requirements for certification of BBQs as safe for use in New Zealand in accordance with the requirements of Regulation 55 of the Gas (Safety and Measurement) Regulations. NZS AS 4557(Int) must be read in conjunction with AS 4557.

It may also be useful to manufacturers certifying a product made in New Zealand which is intended to be sold only in New Zealand. Products certified to this standard are not legal for sale in Australia.

NZS AS 4557(Int) is a modification of AS 4557 to suit New Zealand conditions in the following respects:

- (a) BBQs intended for use on LPG are tested to operate on New Zealand LPG (NZLPG), being any combination of propane or butane without a requirement for testing on propylene.
- (b) BBQs intended for connection to an LPG cylinder are required to be supplied with a flexible hose and regulator assembly incorporating a gas pressure regulator fitted with a quick connect coupling (QCC1) connection at the regulator inlet.
- (c) Natural gas BBQs may use an inlet pressure greater than 1.13 kPa.

NOTE: The alphanumeric numbering applied to 1.2 is to allow the existing numbering throughout the clause to be maintained.

Attention is drawn to the fact that this document was published in 2013 as an interim one. Standards New Zealand extends the invitation to comment on the document from persons and organisations concerned with this subject. The interim period of this standard is extended from 31 March 2014 to 31 March 2016. The reason for this extension is to cover the period during which a proposed joint Australian/New Zealand standard AS/NZS 5263 will be under development, and will eventually replace the Australian standard AS 4557 that this interim standard has adopted. AS/NZS 5263 will be in four parts dealing with gas cookers (AS/NZS 5263.1.1), gas water heaters (AS/NZS 5263.1.2), gas space heaters (AS/NZS 5263.1.3), and domestic outdoor gas barbecues (AS/NZS 5263.1.7). During the life of this interim document the P 5266, WG 4553 committee will monitor all comment as it is received.

It is intended that this interim standard be cited by the Gas (Safety and Measurement) Regulations. Compliance with this interim standard will be a requirement for all gas appliances after the date on which the interim standard is cited in the Gas (Safety and Measurement) Regulations.

NOTE: The designation 'NZS/AS' in this standard has been changed to 'NZS AS' to more accurately identify the standard as adopted from an Australian standard rather than developed as a joint New Zealand/Australian standard.

Outcome statement

NZS AS 4557(Int) will ensure domestic outdoor gas barbeques supplied to the New Zealand market meet essential safety and compliance requirements, while meeting New Zealand's obligations to international trade.

The text of AS 4557:2004 was approved as a New Zealand standard with the agreed national variations as given below.

CLAUSE

1.2.10A After 1.2.10 *add* the following variation:

1.2.10A Certified gas pressure regulator

A gas pressure regulator fitted to the hose assembly of a ULPG barbecue intended for direct connection to a cylinder valve and having a regulator otherwise certified to AS 4621 and fitted to its inlet a cylinder connection device certified to UL 2061 by Underwriters Laboratory, or to ANSI Z21.81/ CSA 6.25 by CSA.

1.2.27.6 After 1.2.27.5 *add* the following variation:

1.2.27.6 NZ liquefied petroleum gas (NZLPG)

A gas known as New Zealand general product LPG (refer to table A1 of NZS 5435).

1.2.42A After 1.2.42 *add* the following variation:

1.2.42A New Zealand gas consumption (NZGC)

For a natural gas appliance, the same as nominal gas consumption (see 1.2.43).

For an NZLPG appliance, the gas consumption calculated from the nominal gas consumption that would be expected when operating on NZLPG consisting of a mix of propane and butane having a Wobbe Index of 84 and a relative density of 1.73 (refer to table A1 of NZS 5435).

1.2.45 After the requirement *add* the following variation:

For an appliance in New Zealand, 2.75 kPa for NZLPG, the manufacturer's marked minimum gas inlet pressure or where no minimum gas inlet pressure is marked 1.13 kPa for natural gas.

2.6.1 After the final paragraph *add* the following variation:

In New Zealand where a gas pressure regulator is fitted to the hose assembly of a NZLPG barbecue, and it is intended for direct connection to a cylinder with a system constructed to CGA V-1, the regulator shall be certified to AS 4621 with the exception of the cylinder valve connection device. This device shall be certified to UL 2061 by Underwriters Laboratory, or to ANSI Z21.81/CSA 6.25 by the Canadian Standards Association.

NOTES:

- 1 This connection device is commonly referred to as quick connect coupling (QCC1).
- 2 The marking requirements of the referenced standards for the cylinder connection device are mandatory.

2.9.1 (h) After 2.9.1 (g) *add* the following variation:

- (h) New Zealand LPG (NZLPG): Yellow.

2.9.5 After 2.9.5 (r) *add* the following variation:

- (s) For natural gas, the minimum gas inlet pressure where this is greater than 1.13 kPa.
- (t) At the discretion of the manufacturer, the New Zealand gas consumption as an additional marking and not as a substitute for any of the markings in (a) – (s) above.

3.1.2 (g) After 3.1.2 (f) *add* the following variation:

- (g) Appliances intended for use on NZLPG shall be tested with test gas 'X' for all performance tests except for Clauses 5.1, and 5.2, where test gas 'Y' shall be used.

4.1 (g) After 4.1 (f) *add* the following variation:

- (g) New Zealand LPG (NZLPG) appliances: Test gases 'X' and 'Y'.

B10.6 Replace Line 2 and Line 9 with the following variations:

- 2 Adjust appliance inlet pressure to normal test gas pressure (see clause 1.2.45)
- 9 Decrease the inlet gas pressure gradually to the normal test gas pressure and record the test point pressure and inlet pressure at intervals no greater than 0.5 kPa (see clause 1.2.45).

Table B2 After the final row *add* an additional row:

	Test gas	Measured gas consumption (% of nominal gas consumption)
NZLPG	Y	125

Table B3 After the final row *add* an additional row:

	Maximum condition		Minimum condition	
	Test gas	Test point pressure*	Test gas	Test point pressure*
NZLPG	Y	$1.25 \times P_t$	X	$0.75 \times P_t$

Table B4 After the final row *add* an additional row:

	Test gas	Appliance inlet pressure	Limiting condition
NZLPG	X	2.00 kPa	the lowest operating setting to which the burner control can be set

Table B5 After the final row *add* an additional row:

	Test gas	Appliance inlet pressure
NZLPG	Y	3.5 kPa

Table B6 After the final row *add* an additional row:

	Maximum condition		Minimum condition	
	Test gas	Test point pressure*	Test gas	Test point pressure*
NZLPG	Y	$1.25 \times Pt$	X	$0.75 \times Pt$

Table B7 After the final row *add* an additional row:

	Maximum condition		Minimum condition	
	Test gas	Test point pressure*	Test gas	Test point pressure*
NZLPG	Y	$1.25 \times Pt$	X	$0.75 \times Pt$

Table B8 After the final row *add* an additional row:

	Minimum condition	
	Test gas	Test point pressure*
NZLPG	X	$0.75 \times Pt$

Table B11 After the final row *add* an additional row:

	Test gas
NZLPG	Y