

AS/NZS 5601.1:2022
Gas installations
Part 1: General installations
Amendment No. 2
Revised text amendment

Publishing and Approval Dates

Council of Standards Australia Approval: 20 August 2024
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Summary

This Amendment applies to the following elements:

- Global changes
- Clauses 1.1.1, 1.2, 1.3, 1.4, 2.1.4, 2.2.1.1A, 2.2.4.8, 2.2.5.3, 5.2.4, 5.2.10, 5.2.11, 5.3.1, 5.9.1, 5.11.1.4, 5.11.1.5, 6.2.2, 6.2.4, 6.7.6, 6.9.3, 6.10.1.1, 6.10.1.7, 6.10.1.9, 6.10.2.7, 6.10.9.5, 6.10.19, C.2, F.2, F.3.1, N.1 and Q.1
- Figures 5.2.12(a) and L.1.2.2
- Tables 4.2, 4.8.1, F.54, F.68 and F.69
- Appendix A
- Bibliography

Amendment Details

AS/NZS 5601.1:2022 is amended as follows. The amendments should be inserted in the locations as instructed.

Element	Instruction/New text
Global change	1 <i>Delete “AS/NZS 2492” and replace with “AS 2492” in all instances.</i>
	2 <i>Delete “AS/NZS 2537.5” and replace with “AS 2537.5” in all instances.</i>
	3 <i>Delete “AS/NZS 60079.10.1” and replace with “AS/NZS IEC 60079.10.1” in all instances.</i>
CI 1.1.1	<i>Delete clause text and replace with the following:</i> This Standard specifies performance-based requirements and means of conformance for the design, installation and commissioning of <i>gas installations</i> that are associated with the use or intended use of <i>natural gas</i> , <i>LP Gas</i> , or biomethane. In addition, the performance-based requirements in Section 2 may be applied to hydrogen, hydrogen blended with natural gas or LP Gas, renewable LP Gas, LP Gas blended with dimethyl ether (DME) and biogas to supply an appliance. See Notes 3 and 4. NOTE 1: In Australia, AS 4564 includes requirements for general purpose natural gas including biogas, and AS 4670 includes requirements for LP Gas.



Element	Instruction/New text
	NOTE 2: In New Zealand, NZS 5442 includes requirements for reticulated natural gas and NZS 5435 includes requirements for LP Gas. NOTE 3: Hydrogen blended natural gas and biomethane that conforms to AS 4564 in Australia and NZS 5442 in New Zealand is considered natural gas in the context of this document. NOTE 4: Renewable LP Gas and LP Gas blended with dimethyl ether (DME) that conforms to AS 4670 in Australia and NZS 5435 in New Zealand are considered LP Gas in the context of this document.
CI 1.2	1 <i>Delete "AS 4551, Domestic gas cooking appliances".</i> 2 <i>Delete "AS 4629, Automatic shut off valves and vent valves" and replace with the following:</i> <i>AS 4629:2005, Automatic shut off valves and vent valves</i> <i>AS 4629.1, Automatically operated valves for use with gas, Part 1: Shut-off valves</i> <i>AS 4629.2, Automatically operated valves for use with gas, Part 2: Vent valves</i> 3 <i>Delete "AS/NZS 1869" and replace with "AS 1869 (all parts)".</i> 4 <i>At end of clause, add the following:</i> <i>EN 15266, Stainless steel pliable corrugated tubing kits in buildings for gas with an operating pressure up to 0,5 bar</i> <i>DIN 30652-1, Excess flow valves – Part 1: Excess flow valves for gas installation</i>
CI 1.3	1 Entry 1.3.57.4, <i>delete term "gas appliance regulator" and replace with "appliance regulator".</i> 2 Entry 1.3.98, <i>delete "a gas appliance" and replace with "an appliance".</i> 3 After entry 1.3.127, <i>add the following definitions:</i> 1.3.128 down-draught system down-draught extraction system ventilation system intended for installation adjacent to household cooking ranges, hobs and similar cooking appliances that draws contaminated air into an internal exhaust duct 1.3.129 overhead radiant heater space heater installed at a high level and designed to provide an effective output mainly of radiation below the level of the heater 1.3.130 overhead radiant tube heater overhead radiant heater that employs a heated tube as the radiant element 1.3.131 patio heater space heater incorporating a dome mounted above the radiant element and designed to provide an effective output mainly of radiation below the level of the dome Note 1 to entry: A dome is a component fitted above the radiant element of an appliance, other than a radiant tube heater, for the reflection of heat. The dome may also protect the burner/radiant element from the effects of rain.
CI 1.4	After the warning, <i>add the following:</i> NOTE 1: In Australia, for work health and safety requirements in each jurisdiction refer to https://www.safeworkaustralia.gov.au/. NOTE 2: In New Zealand, for work health and safety information refer to https://www.worksafe.govt.nz/.

Element Instruction/New text**Cl 2.1.4**

Delete Clause 2.1.4.

Cl 2.2.1.1A (new)

After Clause 2.2.1, *add* the following:

2.2.1.1A General

Where *gas installations* are designed to the performance requirements of this section, rather than by using the means of conformance under Section 3 to Section 6, the level of safety, convenience and efficiency of operation shall be not less than an installation carried out according to Section 3 to Section 6. Such designs shall be documented and kept for 7 years.

NOTE 1: For performance-based designs, some *Technical Regulators* will require to be consulted prior to work commencing.

NOTE 2: Written design specification and drawings together with justification for the deviation of the means of conformance may be required by the *Technical Regulator*.

NOTE 3: Where the installation is of a complex nature, the *Technical Regulator* may require the design to be verified by a suitably qualified professional engineer.

NOTE 4: See Appendix O for a list of symbols used in diagrams of *gas* control systems.

Cl 2.2.4.8

Delete clause text and *replace* with the following:

Any *appliance* connected to a *common flue* shall not adversely affect the operation of any other *appliance* connected to the *common flue*.

Common flues serving *appliances* and industrial equipment that use a fuel other than *gas* shall be designed, constructed and installed to avoid potential hazards created by different fuel types.

A *common flue* shall be used only where no appliance connected to that *common flue* is likely to discharge a combustible mixture.

For domestic solid fuel burning appliances refer to AS/NZS 2918 for flueing requirements.

NOTE: Potential hazards created by differing fuels include ignition temperature variations, chemical interaction, dust of liquid cloud infiltration and embers from solid fuels that could ignite purging gas from an appliance.

CL 2.2.5.3

Delete clause heading and *replace* with "**Appliance location**".

Tbl 4.2

1

Column 1, row 4, starting with "100", *delete* entire row text and *replace* with the following:

50	Stainless steel pipe, corrugated pliable, conforming to EN 15266	Not permitted for use as final connection to an appliance Not permitted in the ground beneath a building unless plastics coated	Components that terminate with a BSP thread in accordance with the pipe manufacturer's specifications	Not permitted in the ground beneath a building Operating limit of 7 kPa applies where malleable cast iron fittings are used	Mechanical jointing using components in accordance with the pipe manufacturer's specifications	Not permitted in the ground beneath a building In other locations, joints shall be accessible for inspection and renewal. Not to be welded or jointed by any other method
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50 (cont'd)	(cont'd)	(cont'd)	Copper alloy press-fit end connector conforming to EN 15266	Fittings shall have yellow HNBR seals Not to be used for applications where the surface temperature of the pipe connector exceeds 60°C unless the manufacturer's specification warrants higher Not permitted in the ground beneath a building Press-fit end connectors not permitted for use as a final connection to an appliance where the final connection has to be destroyed to disconnect the appliance	Crimped joint shall be formed using method and tools in accordance with the manufacturer's specifications	The Technical Regulator may require the installer to be authorized Brazing, welding or annealing shall be conducted in accordance with the manufacturer's specifications, but shall be not less than 1 m from a joint with non-metallic components Not permitted in the ground beneath a building
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Element	Instruction/New text
2	Column 1, row 7, starting with "200", <i>delete</i> entire row text and <i>replace</i> with the following:

200	Copper tube conforming to AS 1432 Type A or Type B with or without plastics coating applied by the manufacturer For sizes over DN 200, tube shall conform to AS 1572 with copper alloy designation C12200 conforming to AS 2738 and a minimum wall thickness of 2.64 mm	Not permitted beneath a building if in the ground or in a concrete slab unless plastics coated or covered with a proprietary wrapping acceptable to the Technical Regulator, see Clause 5.3.13 Where plastics-coated copper tube is used underground or where adverse environmental conditions exist, all joints and fittings shall be protected and made watertight	Copper alloy flared compression fitting conforming to AS 3688 or conforming to AS D26	Not permitted in the ground beneath a building. Mixing of AS 3688 and AS D26 fitting components not permitted	Flared compression	Not permitted in the ground beneath a building
			Copper alloy brazing capillary fitting conforming to AS 3688		Open flame brazing conforming to EN 14324	Brazing alloy to conform to AS/NZS 1167.1, alloy classification B2
			Junctions shall be formed in "hard drawn" tube only	To be formed with appropriate mechanical branch forming tools		Canary colour - (minimum silver content 1.8 %) or a comparable rod
			Socket formed in tube (spigot and socket joining lengths of tube)	To be formed with appropriate tube expanding tool		Joints in the ground beneath a building shall be kept to a minimum
			Brazing flange, copper alloy conforming to AS 2129	Not permitted in the ground beneath a building Not to be used for joining pipe lengths unless other joining methods are impracticable Flanges forming a joint shall be of the same size and face type		
			Screwed flange, carbon steel, steel alloy or copper alloy conforming to — AS 2129, or ASME B16.5 Class 150, or EN 1759-1 Class 150 (Class 125 for cast iron valves or regulators)	Not permitted underground Not to be used for joining pipe lengths unless other joining methods are impracticable Flanges forming a joint shall be of the same size and face type	Taper external and taper or parallel internal threads conforming to AS ISO 7.1 or NPT conforming to ASME B1.20.1	Fitting shall be brazed to the pipe, not screwed Up to 7 kPa, maximum permissible size is DN 100 Over 7 kPa, maximum permissible size is DN 80