

# Introducing the new AS/NZS5601.1 2022 Gas Installation Standard

## Gas Bulletin #55

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The OTR is pleased to announce the new **AS/NZS5601.1 - 2022 Gas Installation Standard** has been published, this new standard replaces the old AS/NZS5601.1-2013 version. Standards are reviewed or amended periodically to ensure standards keep pace with; design innovation on gas installations consumer product development new engineering / industry practices appliance manufacturer requirements.

### Legislation – Implementation

SA legislation automatically calls up referenced Standards including subsequent revisions and amendments. The new 2022 edition of the AS/NZS 5601 Part 1 was published on the 30/9/22. Technical Regulators allows for a transition period of 6 months for industry to transition to a new standard. We do this as stakeholders need time to adjust as such the OTR will implement the new standard on the 31/3/2023

The new standard is not retrospective. Installations performed prior to the published date of a new standard fall back to the standard of that era.

The exception is where an existing gas installation is modified, i.e., addition, replacement or removal of an appliance or pipe work, the installation needs to be brought up to current requirements so the gas contractor can certify the installation.

### Major changes in the new AS/NZS5601.1-2022 gas installation standard

- New definition for an “ignition source”.
- Section 2 has been separated into “Essential safety requirements” and “Performance based design requirements”.
- Brazing prohibited within 1m of a joint with non-metallic components.
- New drawings for consumer piping located in cavities.
- Prohibition on the installation of multilayer pipe above-ground external to buildings, external metallic pipework must extend 1m into building before transitioning to multilayer pipe. Multilayer pipe must terminate at least 1m from the nearest part of the appliance.
- *Provision of emergency isolation for multilayer pipe, including a new definition for a fire safety system.*
- Increased clearance requirement between domestic cooking appliances and rangehoods, new clearance is now 650mm unless the manufacturer specifies a greater distance.
- Restriction on the use of semi-rigid connectors in the installation of commercial catering equipment.
- New requirements for the protection of combustible surfaces adjacent to commercial catering equipment.
- New pipe sizing graphs and tables based upon the Churchill friction factor equation.
- Effect of altitude on gas supply pressure for high rise building installations.
- *Revised requirements for the location of flue terminals under a covered area, in a recess, or on a balcony.*

- *New requirement for the isolation of installations in educational institutions.*
- New requirements for freestanding commercial catering equipment with under-equipment connection.
- *New requirements for the connection of freestanding commercial catering equipment using a hose assembly.*

The OTR will produce an online presentation in the new year covering all of the major changes. For the italicised dot points above please see the added additional information on these key changes below.

#### **Clause 5.2.11 Provision of fire emergency isolation for multilayer pipe.**

Multilayer pipe installations are now required to be fitted with a system that shuts off the gas supply when there is a fire emergency. Multilayer pipe doesn't have the durability and mechanical strength of metallic piping when subjected to fire.

For commercial / industrial buildings:

- Installation to be fitted with a system that will shut off gas supply when the fire safety system operates.
- A single, class 1, safety shut off valve is to be used which operates only when the fire safety system operates.
- Be located upstream of multilayer pipe and as close as possible to the gas supply point and readily accessible.
- The system will provide pressure proving before restoration of the gas supply.

For residential Class 1a buildings in Australia where there is no fire safety system, a device is to be installed that will shut off the gas supply if the gas tightness is adversely affected by fire.

- Be installed in a readily accessible location
- Be installed prior to the multilayer piping
- Devices that sense pressure loss (UPS0)
- Excess flow valves (EFV)



Example UPSO valve



Example EFV

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#### Clause 6.9.4 Flue terminal under a covered area, in a recess or on a balcony

Fan assisted appliances located under a covered area now require the flue terminal to extend beyond the covered area discharging towards the open side.



Flue outlet terminating before opening no longer acceptable



Flue outlet terminating outside opening acceptable

#### Clause 5.2.9.1 Isolation for installations in educational institutions

In installations where a number of appliances without flame safeguard systems are used, such as a school laboratory, a means of isolation shall be fitted.

- Readily accessible quarter turn manual isolation valve, *and*
- Solenoid valve supply gas to the installation controlled by timing device, *and*
- A readily accessible emergency e stop button, *and*
- Operating instructions, *and*
- Pressure proving

#### Clause 6.10.2.7 Connecting free standing commercial cookers with a hose assembly

Where a hose assembly is to be used to connect a commercial freestanding appliance:

- Appliance be designed and certified for hose assembly
  - Only Class B or Class D hose assemblies to be used
  - Hose installed in U shape configuration, similar to a domestic upright cooker installation
  - Both connection points to face downwards
  - Hose restraint fitted, no longer than 80% of the hose assembly
  - Stoppers installed to prevent the appliances from being pushed up against gas components and hoses
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Correct installation method for free standing commercial cooking equipment

### Standards Australia

The new standard is published by Standards Australia, to purchase a copy please follow the link below.

[Discover AS/NZS 5601.1:2022](#)

### Contacts

Should you require further information or assistance, please contact our office on 08 8226 5722 or email us at [otr@sa.gov.au](mailto:otr@sa.gov.au)

Regards

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