

Gas Information Sheet No. 45

Performance-based Complex Gas Installations

AS/NZS 5601 Part 1 *General Installations*, Section 2, *Performance-Based Design and Other Essential Requirements* provides industry with the ability to design gas installations to meet performance requirements rather than have gas installations meet deemed-to-satisfy requirements of Sections 3 to 6 of AS/NZS 5601.1 as amended from time to time.

When adopting a performance-based approach the level of safety, convenience and efficiency of operation shall not be less than an installation installed to meet the deemed-to-satisfy requirements.

AS/NZS 5601.1 states:

- The *Technical Regulator* may require to be consulted prior to work commencing.
- Written design specifications and drawings together with justification for the deviation of the means of compliance may be required by the *Technical Regulator*.
- Where the installation is of a complex nature, the *Technical Regulator* may require the design to be verified by a suitably qualified professional engineer.

Alternative solutions

Energy Safe Victoria requires all **complex gas installations** involving an alternative solution to be clearly nominated on the **Application for Acceptance** of a gas installation and be accompanied by documentation outlining the scope of work the alternative solution relates to. The documentation should include the following:

- Performance requirements the alternative solution is required to meet.
- Identification of the relevant deemed-to-satisfy clause.
- Documents relied upon to substantiate the alternative solution proposal may include but are not limited to
 - NATA accredited test reports
 - experts judgments, or evidence that is being relied upon to support the alternative solution.

All documentation must be kept for seven years.

Assessing alternative solutions

Alternative solutions must be assessed by Energy Safe Victoria to ensure that the alternative solution meets the performance requirements of the installation.

Assessment methods are determined commensurate to the complexity of the alternative solution design, and performance requirement or requirements to be achieved.

Assessment methods include:

- Documentary evidence.
- Verification methods.
- Expert judgment methods.
- Comparison to the deemed-to-satisfy requirements.

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Important notes

Submissions will be reviewed on a case-by-case basis and no guarantee is given that a performance based approach will be accepted by ESV.

AS 3814 *Industrial and commercial gas-fired appliances* has no performance section, so therefore, an exemption in line with Schedule 6, of the Gas Safety (Gas Installation) Regulations 2008 *Application for Exemption*, is required if the proposed installation is not able to meet the requirements of the Standard.

Further information

For further information, contact the Gas Technical Information Helpline on 1800 625 563.