

Australian Standard[®]

CNG refuelling stations



This Australian Standard® was prepared by Committee AG-009, Natural Gas Vehicle Refuelling Stations. It was approved on behalf of the Council of Standards Australia on 13 August 2009.

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The following are represented on Committee AG-009:

- Association of Accredited Certification Bodies
 - Bus Industry Confederation
 - CNG Refuelling System Suppliers
 - Department for Transport, Energy and Infrastructure, SA
 - Department of Consumer and Employment Protection, WA
 - Department of the Premier and Cabinet, SA
 - Energy Networks Association
 - International Association for Natural Gas Vehicles
 - Motor Trades Association of Australia
 - State Public Transport Operations Interests
-

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PREFACE

This Standard was prepared by the Standards Australia Committee, AG-009, Natural Gas Vehicle Refuelling Stations, to supersede AG 901—1996, *Code of Practice for NGV Refuelling Stations*. It retains the same format and much of the previous text but with technical and editorial amendments reflecting changes to Standards and regulations that have occurred since AG 901 was last comprehensively reviewed.

The objective of the Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories, installers and similar organizations with minimum uniform requirements for the safety, installation, performance and operation of CNG refuelling stations.

The minimum requirements set out in this Standard are to be read in conjunction with—but do not take precedence over—any Statutory Regulations that may apply. In its preparation consideration has been given to—

- (a) continuity of satisfactory operation of components and equipment;
- (b) the prevention of injury to persons or property;
- (c) the prevention of fire hazards and explosions;
- (d) gas rules and regulations now in force; and
- (e) relevant Australian Standards as identified in Clause 1.2.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the Appendix to which they apply. A ‘normative’ Appendix is an integral part of a Standard whereas an ‘informative’ Appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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STANDARDS AUSTRALIA

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design, construction, operation and maintenance of compressed natural gas (CNG) refuelling stations, which can be one of the following:

- (a) fast fill, where vehicles are filled in a period of minutes, analogous to liquid refuelling;
- (b) time fill, where one or (in most cases) a number of vehicles are filled simultaneously over a period of some hours; or
- (c) a combination of fast fill and time fill.

It does not cover equipment sizing and refuelling performance (the latter to be agreed between the purchaser and station constructor to suit the particular requirements of each station).

This Standard does not cover the requirements for the following:

- (i) Liquefied Natural Gas (LNG) refuelling stations; or
- (ii) Vehicle Refuelling Appliances (VRA) installations, which are covered by AG 806.

NOTES:

- 1 Appendix D contains a checklist that provides guidance on the aspects of the station that should be checked prior to putting the station into service and during annual safety inspections.
- 2 To the extent this Standard provides, in addition to minimum requirements, guidance in areas relating to the design and installation of CNG refuelling stations, such guidance should not be regarded as a design specification or an instruction manual.

1.2 REFERENCED DOCUMENTS

The documents below are referred to in this Standard.

AS

AG 807	Approval requirements for natural gas flexible hose and hose assemblies for pressures above 2.6 MPa
1349	Bourdon tube pressure and vacuum gauges
1530	Methods for fire tests on building materials, components and structures
1530.4	Part 4: Fire-resistance test of elements of construction
1674	Safety in welding and allied processes
1674.1	Part 1: Fire precautions
1725	Chain-link fabric security fencing and gates
1851	Maintenance of fire protection systems and equipment
2030	Gas cylinders
2030.1	Part 1: General requirements