

Petroleum and Gas Inspectorate

Guideline for gas safety and compliance Caravans, camper trailers and recreational vehicles

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Summary

This Guideline outlines the requirements and obligations of manufacturers, owners and potential owners of caravans, camper trailers and recreational vehicles (RVs) in relation to gas system safety in Queensland. It may also assist the wider gas industry in understanding roles within the requirements and obligations prescribed in Queensland.

The Petroleum and Gas Inspectorate (P&G Inspectorate) regulates the gas industry by applying the *Petroleum and Gas (Production and Safety) Act 2004* (the Act).

The purpose of the Act is to facilitate, regulate and develop a safe, efficient and viable fuel gas industry.

This includes ensuring gas safety in relation to the installation, maintenance, repair and use of gas systems in caravans, camper trailers and recreational vehicles.

The term gas system includes the LP gas cylinder, gas-piping systems, ventilation and fluing, and any gas appliance connected to the caravan gas system for use.

Gas systems should comply with the requirements of the nationally recognised *Australian standard AS/NZS5601.2 Gas installations, Part 2 LP Gas systems in caravans and boats for non-propulsive purposes* (AS/NZS5601.2).

Two critical gas safety requirements prescribed by the Act are the need for:

- gas appliances to be approved for supply, installation and use
 - gas appliances installed in caravans, camper trailers and RVs are generally mass produced gas devices (Type A). This type of appliance is approved under a type test scheme by a conformity assessment body. The approval is nationally recognised. The use of gas devices (type B) is not recommended.
- gas work to be conducted by an appropriately qualified and licensed person
 - Queensland provides two types of gas work license in relation to gas work on a gas system installed in a caravan:
 - an unrestricted or unconditioned gas work license (full)
 - a service and caravan certification gas work license.

Caravan, camper trailer and RV manufacturers

Manufacturers of caravans, camper trailers and RVs should ensure the gas system designed for their vehicle complies with **all** requirements of (AS/NZS5601.2).

Designers of caravans, camper trailers and RVs should, in consultation with a licensed gas installer, give specific consideration to the following:

- locating electrical equipment that has the potential to be an ignition source away from the LP gas cylinder locations
- providing adequate and permanent ventilation to any space that contains, or that may contain an gas appliance
- designing cabinetry and exhaust/range hood locations to ensure clearances to gas burners
- locating the flue/exhaust terminal of any installed gas appliance so it will discharge outside any annex or attached enclosure;
- installing bayonet and quick connect devices to the gas system outside any area that may be enclosed by the future fitment of an annex or other enclosure
- ensuring any gas appliance that connected to the gas system, or uses gas from the vehicle gas system includes a flame safeguard system.

Note: Including appliances connected by a bayonet or quick connect device; for example, domestic barbeques provided as optional extras, whether stored or affixed to the vehicle.

In addition, manufacturers must engage an appropriately qualified, experienced and licensed gas installer to undertake the installation of the gas system. On completion of the installation, the installer is required to provide a certificate confirming compliance.

Caravan, camper trailer and RV sales and resale

Caravan, camper trailer and recreational vehicle owners, potential owners, brokers and proprietors of vehicle sales yards should be aware of legislated requirements for the sale of new and used vehicles in Queensland.

New caravans

New caravans, camper trailers and recreational vehicles offered for sale must have a gas compliance certificate issued for the gas system installation. The buyer must receive a copy of the certificate before they take possession, normally as part of the vehicle documentation pack. Certificates issued by licensed installers in others states are acceptable for this purpose.

Used caravans

The new owner of a used or second-hand caravan must be provided with a gas compliance certificate for the gas system prior to taking ownership. The certificate must be less than **three months** old. Interstate certificates issued by licensed installers are acceptable for this purpose, and it only applies to registered caravans, camper trailers and recreational vehicles.

Gas work license holders

Full license

Gas system installation work must only be undertaken by the holder of a full gas work license. On completion of the installation work, whether it is a complete gas system or an extension to an existing gas system, the installer must issue a gas compliance certificate for the installation work performed.

Apprentices and trainee gas installers

Any gas work conducted by a gas apprentice or trainee must only be performed under the direct supervision and presence of a gas work license holder.

Service and caravan certification license

Holders of a gas work license 'Service and caravan certification' cannot perform installation work. In addition, they cannot provide supervision of apprentices or trainees for the purposes of installation work.

They can service gas appliances, including disconnecting and reconnecting a gas appliance for the purpose of maintenance or repair. They cannot replace a faulty appliance with a 'new' appliance; this is installation work and requires the holder of a full gas work license. Unlike service work, the replacement of an appliance instigates the requirement to upgrade the appliance installation in line with the requirements of the current standard.

Further information on gas work licencing is available at www.business.qld.gov.au/industries/mining-energy-water/resources/safety-health/petroleum-gas/licences-authorisations/licences

Gas system

Gas system installations

Gas systems installed in caravan, camper trailer or recreational vehicle should comply with the requirements of AS/NZS5601.2.

AS/NZS5601.2 provides compliance requirements including, but not limited to:

- LP Gas cylinder locations and mounting
- gas pressure regulator operating and performance
- gas pipe materials, jointing methods, pipe locations, and gas isolation provisions
- appliance clearances, flame supervision, ventilation and flueing requirements

Appendix A provides a checklist to assist in assessing compliance of a caravan, camper trailer or recreational vehicle gas system.

Gas appliances

In Queensland, all gas appliances must be approved for supply, installation and use.

Dependent on the design and intended use, gas appliances are approved for a particular use or application. The use or application may be:

- indoor use / outdoor use

- commercial / domestic appliances.

A requirement of the gas appliance approval process is that the appliance manufacturer must attach a label that identifies the appliance is approved and the specific appliance certificate number.

Appliances also have to be labelled for any specific condition of use, for example **outdoor use only** or **domestic use**.

- Look for one of these badges



- check for the approval certificate number on the Gas Technical Regulators Committee (GTRC) website: <http://equipment.gtrc.gov.au/>
- check for any special conditions of use:
 - outdoor use only
 - domestic use only
 - not suitable for use in a caravan or boat
 - not suitable for connection by a hose assembly
 - use in well ventilated area only.

If there is no evidence of approval, the gas appliance must not be supplied, installed or used. For further information, contact the P&G Inspectorate.

Portable and mobile appliances

Mobile and portable appliances must only be used in line with manufacturers' instructions and in line with any specific operating conditions or warning labels. For example, gas appliances approved for outdoor use must only be used outdoors. This would restrict the user from using an outdoor appliance within the annex of a caravan.

Owners and potential owners should ensure they receive a copy of all gas appliance and equipment installation, service and user manuals as part of the vehicle document package.

It is also worth noting that the following also applies:

- any LP gas cylinder, a spare or used for a portable or mobile appliance must be stored and secured as if it was part of the vehicle gas system
- any portable or mobile appliance connected to a caravan, camper trailer or recreational vehicle gas system for use is considered to be part of the vehicle gas system.

Gas system compliance

Gas compliance certificates

All gas systems require a certificate of compliance issued by the installer at the time of installation. A copy of this original certificate must be given to the owner of a new vehicle.

In addition, when a used or second-hand vehicle is sold, the seller must provide a gas compliance certificate (that is less than three months old) to the new owner.

To provide a consistent approach to the assessment of the gas system the person certifying the gas system may use the checklist included in AS/NZS5601.2, and provided as Appendix 1 in this guide.

Gas system defect notices

If a person working on a gas system or inspects a gas system for compliance identifies a non-compliance, or has a safety concern, they must document the non-compliance or concern on a *Gas system defect notice*. A copy of this notice must be given to the owner of the gas system.

Appendix 1

Caravan Gas System Checklist			
Customer details			
Customer name		Phone number	
Address		Email	
Vehicle details			
Make		Model	
Registration		Vin / Chassis	
Gas System details			
Items	Compliant	Not applicable	Comment
LP Gas cylinders / locations			
<i>Clearances to ignition sources and opens</i>			
<i>Mounted and stowage</i>			
<i>Cylinders correctly restrained</i>			
<i>Compartments and lockers designed and constructed correctly</i>			
<i>Compartments and lockers identified</i>			
<i>Any other matter</i>			
Gas pressure regulators			
<i>Gas Pressure Regulator certified</i>			
<i>Over pressure protection to 14KPa</i>			
<i>Gas regulator set to 3KPa</i>			
<i>Regulator correctly mounted and supported</i>			
<i>Gas pressure test point</i>			
<i>Any other matter</i>			
Gas pipework			
<i>Designed correctly</i>			
<i>Location</i>			
<i>Supported and secured</i>			
<i>Corrosion protection</i>			

<i>Materials and fittings</i>			
<i>Isolation valves</i>			
<i>Flexible connections</i>			
<i>Pipe sized correctly</i>			
<i>Any other matter</i>			
Appliance installation			
<i>Mounting and restraint</i>			
<i>Location</i>			
<i>Clearances to combustibles</i>			
<i>Temperature hazards</i>			
<i>Method of isolation and disconnection</i>			
<i>Any other matters</i>			
Ventilation			
<i>Requirements</i>			
<i>Size of openings</i>			
<i>Location of openings</i>			
<i>Any other matters</i>			
Flues			
<i>Design (open flue or room sealed)</i>			
<i>Terminal locations</i>			
<i>Any other matters</i>			
Signage and labels			
<i>LP Gas cylinder location / LP gas storage</i>			
<i>Consumer instructions</i>			
<i>Cooking appliances not to be used for heating</i>			
<i>Ensure ventilation when cooking</i>			
<i>Vents to remain open and unobstructed</i>			
<i>Any other signage or labels</i>			
Person completing checklist			
Name:		License number:	
Date:		Signature:	

This checklist is to assist those undertaking caravan, camper trailer and RV gas system inspections; it does not replace nor relieve any legislated obligation to certify full compliance of the gas system on the approved form.

Note: Applicable safety requirements include, but may not be limited to:

- *AS/NZS5601.2 Gas installations. Part 2 LP gas systems in caravan and boats for non-propulsive purposes*
 - *General gas systems in caravans, camper trailers and RVs*
- *AS/NZS5601.1 Gas installations Part 1 General installations*
 - *Commercial catering equipment installed in mobile kitchens*
- *AS/NZS1596 The storage and handling of LP gas*
 - *LP gas cylinders >9Kg installed as part of a 'static' caravan gas system*