

Storage and use of LP gas at public events

Introduction

This guideline applies to the minor storage and use of liquefied petroleum gas (LP Gas) at public events such as festivals, major sporting events, fetes and local markets.

The intent of this guideline is to ensure an acceptable level of gas safety, and minimise the possibility of gas-related incidents. Where practicable, LP Gas should be stored and used in accordance with Section 2 of AS/NZS1596 The storage and handling of LP Gas – Minor Storage so that quantities are below levels that are unlikely to play a significant part in spreading a fire from place to place, so firefighting facilities are expected to cope adequately. Where it is not practicable to keep LP Gas storage within the limits of minor storage, other relevant sections of AS/NZS1596 should be applied.

Event organisers of public events have a legal duty of care to provide a safe operational environment. Organisers and the users of LP Gas owe a concurrent duty of care, and should manage risks through a process of identifying, assessing and managing risks.

All gas storage and gas installations must comply with Gas Safety Regulations and relevant Standards.

Acknowledgment

WorkSafe Tasmania acknowledges the use of the Public Events, Catering Vendors Information Pack produced by Energy Safe Victoria.

Stall holders/catering vendors

The stall holder/catering vendor should nominate suitably competent people to be responsible for the safe use of LP Gas for the duration of the event, with responsibility to ensure the gas safety plan for their stall/facility is developed and adhered to which includes:

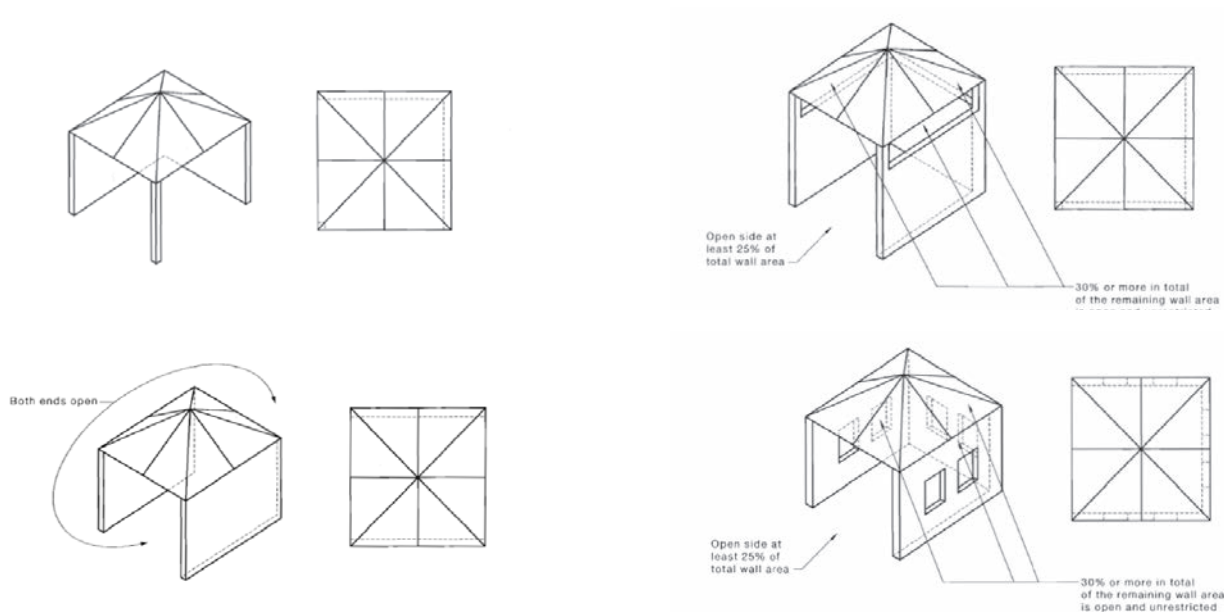
- the type and position of gas appliances
 - that only certified appliances are allowed
 - maintained appliances are in good working order and fit for purpose
- arrangement of gas supply
 - cylinder size, numbers, location and any associated pipe work
- the location of firefighting equipment
 - working extinguishers and fire blankets
- clearances and separations
 - clearances from combustibles and sources of ignition
- confirmation that all site personnel are instructed in:
 - correct operation of appliances
 - facility emergency procedures
 - emergency gas supply isolation
 - emergency evacuation
 - site emergency procedures
 - emergency evacuation
 - emergency contact details
 - emergency assembly points
- confirmation that the facility gas safety plan has been passed to the event organiser before the event.

Temporary outdoor – ventilation

A marquee, tent, booth, awning or structure not located within a building may be classified as a quasi-outdoor area if it meets the following criteria

- two sides open; or
- one side open equal to 25% of the total wall area and 30% the remaining total wall area open and unrestricted.

Examples of outdoor areas:



Temporary outdoor areas – minor storage

Gas storage within enclosures is allowable provided the total quantity does not exceed 60kg and the maximum cylinder size does not exceed 15kg with one cylinder per appliance.

Temporary outdoor areas – exceeding minor storage

Where storage quantities exceed the limits of minor storage (above):

- cylinders must be located outside of the enclosure
- maximum total quantity: 180kg
- maximum cylinder size: 45kg
- all appliances should be connected for one gas supply point
 - if multiple cylinders, cylinders to be manifolded and supplied through one regulator
- manifolded cylinders must be installed by a licensed gasfitter (the gasfitter is to fit a compliance tag and submit a Gas Fitting Notice).

Temporary indoor structures – minor storage

Gas storage within enclosures within buildings with a roof and three or more walls is allowable provided the gas quantity does not exceed 1kg per 1m² of floor area with a total maximum quantity of 30kg, and maximum cylinder size does not exceed 15kg with one cylinder per appliance.

Temporary indoor structures – exceeding minor storage

If the quantity of storage or size of cylinder exceeds the limits of minor storage (above), cylinders must be installed externally to the building.

Appliance ventilation

Gas appliances burn air for combustion and release products of combustion. Therefore air must be replaced and combustion products must be diluted to a safe level. Venting for any gas escapes may also be required. High and low level ventilation openings are required to ensure adequate ventilation.

The area of ventilation (without any restrictions) for both high and low level (in square centimeters) is calculated by multiplying the total hourly gas consumption in megajoules (Mj/h) in the area to be ventilated by a factor of three. Megajoule ratings for appliances can be found on the appliance data plate.

Example:

Enclosure size 3M x 3M x 2.7M = 24.3M³ total area

Allowable total appliance gas consumption before additional ventilation is required. 24.3M³ x 3 = 72.9Mj/h

If the total appliance gas consumption exceeds the allowable gas consumption and additional ventilation is required, a licensed gasfitter should be contacted for advice on sizing and installing any necessary ventilation.

Gas appliances

All gas appliances used at an event must be certified. Appliances shall display a certification badge or certification number of compliance/data plate if fitted.



If an appliance does not display a certification badge, it is not to be used at a public event.

Appliances will not be installed or used indoors if they are certified for outdoor use only, with the exemption of solid top barbecues in well-ventilated areas.

Not acceptable



Homemade appliance not certified

Acceptable



Solid top barbecue certified outdoor use allowed indoor in a well-ventilated area

Appliance stability

All appliances shall be located on a flat stable surface. All benches (or similar) with an appliance mounted on them shall be located on a flat stable surface and be non-combustible, unless otherwise certified by the appliance manufacturer. Appliances on benches shall be secured to prevent movement.

Cartridge fuelled appliances

Appliances fuelled by disposable butane gas cartridges should not be used at a public event.

Not acceptable



Acceptable alternative



Portable ring and wok burners

Portable ring and wok burners shall be installed into a stable sturdy stand.

Not acceptable



Acceptable

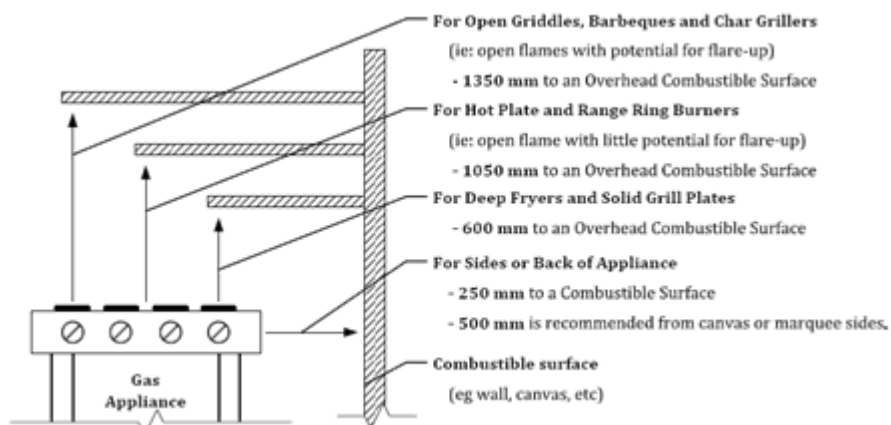


Multiple appliances supplied from a single source

Multiple appliances supplied from a single must be rigidly manifolded by a licensed gasfitter. The gasfitter is to fit a compliance tag and submit a Gas Fitting Notice.



Clearance from combustible material and surfaces



Hot water units

All hot water units shall be installed by a licensed gasfitter. The gasfitter is to tag and complete and submit a Gas Fitting Notice.

Gas pipe work or hoses should be protected and not cause a tripping hazard. Gas hoses should not inhibit any access or exit ways.

Heaters

Portable heaters certified for outdoor use shall not be installed in any indoor location including any quasi-indoor area.



Not acceptable appliance indoors

Components

LP gas hoses

LP Gas hoses should be connected to prevent entanglement and tripping. Hoses shall be certified and suitable for the application, short as possible, not exceeding three metres in length, and be of continuous length. Hoses shall only supply one appliance each. Hoses should not be kinked or strained and should be in good condition.

Not acceptable



Hose kinked and under strain

Acceptable



No strain on hose

Regulators

For non-portable appliances, two stage regulators with over pressure protection is acceptable. For appliances certified as portable and connected directly to a cylinder not exceeding 15 kg, a single stage regulator is acceptable.

Cylinders

Access and exits

Clear access and exits must be maintained around cylinders. A minimum of 1.2 metres should be maintained.

Not acceptable



Acceptable



Stabilising cylinders

All cylinders must be stable and secure to prevent them from being knocked over. Cylinders connected to an appliance shall be stable and secure with the relief valve directed away from the appliance, combustible materials or any potential ignition source.

You can stabilise the cylinder by:

- securing the cylinder to a permanent structure
- placing smaller cylinders in a secure/stable container
- securing larger cylinders with chains to stakes or star pickets
- fixing it in a metal trolley secured to prevent tilting
- any other appropriate methods.

Not acceptable



Not clear from combustibles or secure

Acceptable



Secured and clear of combustibles



Secured to other cylinders



Secured and on stable base

Distance from ignition source

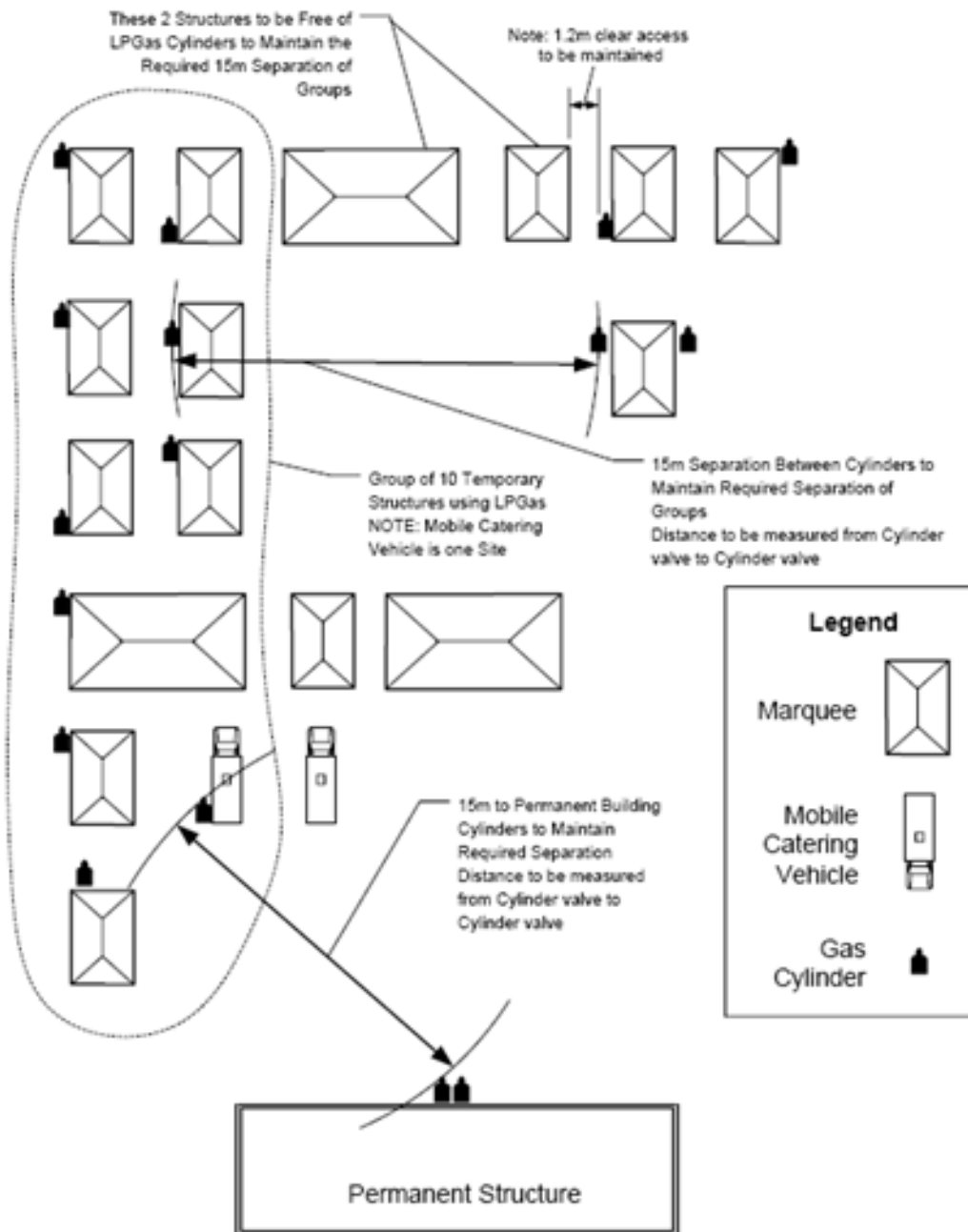
Cylinders in use shall be located 1.5 metres from ignition sources such as electrical equipment or objects that may produce excessive heat (this may include gas appliances). Portable appliances certified with provision for cylinders are acceptable.

Groups of temporary structures

Where temporary structures or mobile structures are grouped together (for example, a group of marquees, stalls or tents at a market) there shall be a maximum of 10 such structures using LP Gas in any one group.

These groups should be separated by at least 15 metres from other gas using groups. The intervening space may be occupied by temporary structure in which no flammable gas or liquids are kept. No permanent structures should be within the 15 metre gas free zone.

Mobile catering vehicles/trailers are included in the total for any group of structures.



Mobile catering vehicles and trailers

Gas installations in mobile catering vehicles, trailers or like must be installed by a licensed gasfitter in accordance AS/NZS 5601.2.A legible compliance tag must be affixed to the vehicle by the gasfitter.

Gas Safety Checklist

This gas safety checklist is for use by all public event gas consumers or suitably qualified personnel and should form part of consumer's safety plan.

Event

Name

Stall Number/Registration Number

Signature Date

Gas Safety Checks

	Yes	No	Action if No
Appliances Certified			
Appliances in good working condition			
Safety devices working			
Controls working and marked			
Appliance hoses acceptable			
Area appropriately ventilated area			
Clearance from combustible surfaces			
Suitable clearance from appliance to cylinders			
Consumer pipework compliant and compliance plate fitted and current.			
Regulator in good condition			
Regulator hose in good condition			
Single/Individual hose per appliance			
Hoses protected from damage			
Hoses not a tripping hazard			
Hoses not more than 3 m in length			
Cylinder connections checked for leaks			
Cylinders secured			
Cylinders located away from flammable materials			
Cylinders located away from ignition sources			
Cylinders not in exit or path of travel			
Cylinder quantity and size not exceeded			

This check list should be kept at the stall for viewing by authorised personnel or the event organiser if requested.

For more information contact

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(03) 6166 4600 (outside Tasmania)

Email: wstinfo@justice.tas.gov.au

Web: www.worksafe.tas.gov.au

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