



# LPG

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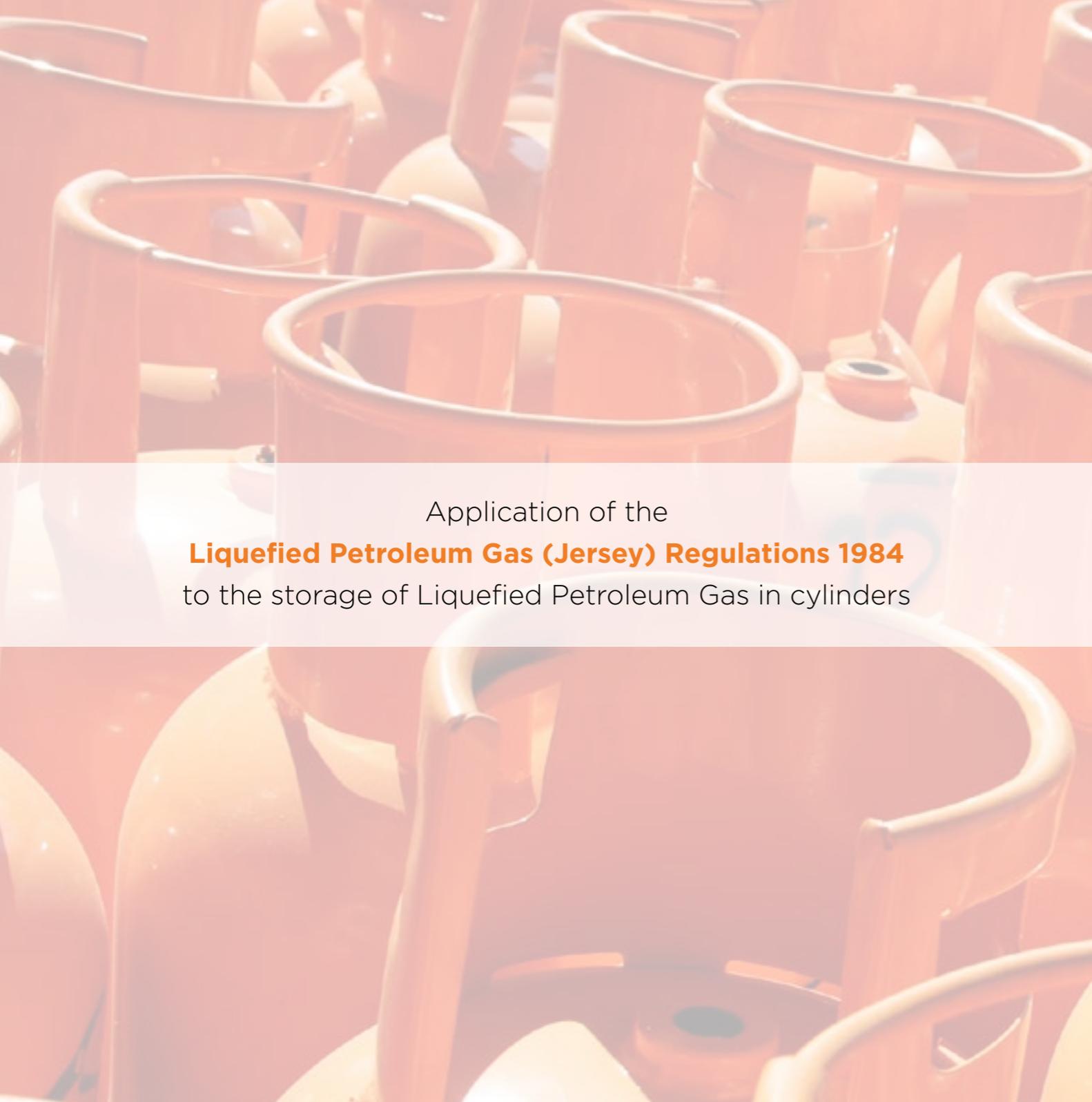
Guidance on the storage of  
**liquefied petroleum gas**  
in cylinders

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Health and Safety at Work (**Jersey**) Law 1989



States  
of Jersey



Application of the  
**Liquefied Petroleum Gas (Jersey) Regulations 1984**  
to the storage of Liquefied Petroleum Gas in cylinders

## Liquefied Petroleum Gas (LPG)

Liquefied Petroleum Gas (LPG) can be potentially hazardous if not stored or used in accordance with recognised industry best practice.

LPG is used as a fuel in a range of applications and can be supplied in a variety of ways such as in canisters, cylinders and in bulk storage tanks. The arrangements for storage are dependent upon the total quantity of gas stored.

**This publication provides advice on the outdoor storage and display of full and nominally empty cylinders; the guidance applies where the total amount of LPG kept is less than 400 kg.**

It is difficult to distinguish between full and nominally empty cylinders and therefore cylinders should be kept apart particularly at retail and smaller premises. Refillable LPG cylinders should usually be considered full as they still contain LPG vapour.

LPG can be obtained primarily as propane, butane or a mixture of the two. A pungent odorant is added so that small leaks can be easily detected.

LPG is flammable and heavier than air so that it will settle and may accumulate in low spots such as drains and basements, where it could present a fire or explosion or suffocation hazard; it must not be stored or displayed below ground level.

## Location of LPG storage area

- Cylinders should be stored in a well ventilated position in the open air on flat, suitable hard standing.
- Unless fire separation walls are provided, the cylinders should be kept at least 1 metre away from any boundary, building or source of ignition.
- LPG should not be kept, stored or displayed below ground level, such as in a cellar, pit or basement where escaping gas is likely to accumulate.
- There should be no opening into buildings, cellars or pits within 2 metres of the LPG storage area.
- If a drain or gully is unavoidably within 2 metres of the storage area the opening should be securely covered or fitted with a suitable water seal to prevent the entry of vapour.
- Electrical fittings within 1.5 metres vertically and 1 metre horizontally of any cylinder containing LPG are required to be suitable for use in a Zone 2 area (BS EN 60079 -10-1:2015 Explosive atmospheres. Classification of areas. Explosive gas atmospheres).
- A suitable notice should be displayed prominently to indicate: the presence of LPG; the contents are highly flammable; smoking and other sources of ignition are prohibited; what to do in the case of fire or leakage of LPG.
- The extent of the storage area, unless a fence or cage is provided, should be clearly marked.
- The storage of LPG should not obstruct means of access, egress, passageways or emergency exits.

## Security of LPG storage area

- For retail and temporary storage such as petrol station forecourts, cylinders may be kept in a small lockable wire cage. A small mesh size should be selected to prevent any unauthorised tampering with the cylinder valves from outside the cage.
- If a secure storage compound is used instead of a lockable cage, the compound must be surrounded by a substantial fence constructed from industrial type mesh, for example 12 gauge 52mm x 52mm welded panels or 12 gauge link fencing, and at least 1.8 metres high.
- A single entrance to the compound is permitted provided that the escape travel distance from any part of the storage area is less than 12 metres, measured around the containers. The gate should not be self-locking, must open outwards and be easily and immediately openable from the inside.
- The doors or gates to any storage facility must be kept locked when unattended.



## General housekeeping

- The area should be kept clear of weeds, foliage, rubbish and other combustible materials. Long grass and weed should be removed within 3 metres of the cylinders.
- No flammable liquids, combustible, corrosive, oxidising, toxic or explosive materials, or compressed gas cylinders should be stored within 3 metres of an LPG storage area unless they are separated by a wall conforming to a 30 minute fire resistance specification.
- Smoking or other potential sources of ignition should NOT be permitted within 1 metre of the storage area.
- Motor vehicles, other than those collecting or delivering LPG cylinders, should not be allowed to park within 3 metres of the storage area. Suitable barriers should be erected to prevent unauthorised parking and accidental damage, where necessary.
- LPG cylinders should be stored with the valves uppermost unless the cylinders are designed to be used otherwise. If necessary, tall cylinders should be secured to protect against being toppled.
- Plastic caps or bungs, where provided, should be fitted to cylinders even when they are regarded as empty.
- Suitable and sufficient access to the area should always be provided and maintained for Emergency Services personnel.
- Manifold systems should be regularly inspected and maintained. The time interval between inspections will depend upon the location of the system: further guidance should be obtained from the installer.

## Emergency measures

- There should be adequate firefighting equipment on the premises. Specific guidance on this matter may be obtained from the States of Jersey Fire & Rescue Service. However, for quantities of LPG less than 400 kg, it is advised that at least one 9 litre water extinguisher and one 2 kg dry powder extinguisher be provided and kept ready for use.
- People on premises where LPG is stored should receive adequate instruction and training on the actions to be taken in the event of fire or a leakage of LPG. These instructions should be repeated on a regular basis.
- Notices setting out the emergency procedures should be prominently displayed near the LPG storage area.
- In the event of a leakage of gas being detected from an LPG cylinder, the Fire & Rescue Service should be called immediately.
- PROVIDED IT IS SAFE TO DO SO, nearby sources of ignition should be extinguished, the cylinder valve closed and any plug or cap securely replaced. If the leak cannot be stopped, AND IT IS SAFE TO DO SO, the container should be removed to a well-ventilated open space which is well away from drains, buildings, sources of ignition and other LPG cylinders.
- General access to the leaking cylinder should be prevented, by barriers if necessary. Notices advising of the presence of a leaking cylinder and prohibiting smoking and other naked lights should be displayed. The supplier of the cylinder should then be informed immediately. No attempt should be made to make any repairs.

- In the event of a fire:
  - ▶ The alarm should be raised, including activation of any fire alarm;
  - ▶ The Fire & Rescue Service should be called immediately: telephone 999 and inform the Service that LPG cylinders may be involved;
  - ▶ The immediate area, including people occupying other accommodation in close proximity, should be evacuated;
  - ▶ On the arrival of the Fire & Rescue Service, the Fire Officer should be informed of the location of the fire, the location of the LPG cylinders and the location of any other hazardous materials that may be held on the premises.



## Further advice and guidance

UKLPG Code of Practice 7: 'Storage of Full and Empty LPG Cylinders and Cartridges'

UKLPG Code of Practice 24 Series: 'Use of LPG Cylinders' Parts 1 - 6

UKLPG Code of Practice 3: 'Prevention or Control of Fire involving LPG'

UKLPG Codes of Practice are available from [www.uklpg.org](http://www.uklpg.org)

The legislation 'Liquefied Petroleum Gas (Jersey) Regulations 1984' is available on the official website of the Jersey Legal Information Board: [www.jerseylaw.je](http://www.jerseylaw.je)

Note: Should you require any further information or specific guidance on matters falling outside the scope of this publication, for example indoor storage of LPG or quantities of LPG in excess of 400 kg, please contact the Health and Safety at Work Inspectorate.

## Contact

### Health and Safety at Work Inspectorate

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