

Revised: October 2018

Guidance for Operators of Public Liquefied Petroleum Gas (LPG) Refuelling Facilities on the Filling of 'Freestanding' LPG Cylinders'

Scope

This User Information Sheet applies to any operator of a public LPG refuelling facility/Autogas dispenser² that allows the refuelling of customer-owned freestanding LPG (propane) cylinders. It outlines a brief summary on the legal duties & implications for the facility and provides some guidance on emergency and filling procedures. This guidance does not remove the obligation of the facility operator to perform a risk assessment to identify, control and mitigate the hazards associated with filling customer-owned freestanding LPG cylinders.

Introduction

The majority of LPG cylinders in service in the UK are traditional, welded steel cylinders.

Most cylinders are owned by and remain the property of the gas supplier whose name is printed/ marked on the cylinder. These cylinders are **filled by weight** and must **ONLY** be filled in a dedicated filling plant by the gas supplier or their authorised filling contractor. It is unlawful for anyone else (either a company or private persons) to fill these cylinders.

Customer-owned freestanding LPG cylinders have been available for a number of years and are generally sold to private persons who have responsibilities for their cylinder. This includes, but is not limited to, cylinders sold directly to caravan and leisure home owners which are usually filled by the user/ owner of the cylinder. These cylinders are **filled by volume** and fitted with **automatic overfill protection** on the valve. This automatically stops the filling at the correct level. The maximum fill is 80% of the cylinders marked water capacity. This is to allow for expansion of the LPG in the event of a temperature increase.

An overfilled cylinder is potentially dangerous and may result in serious damage to life and/or property.

The Law

UK Regulations impose duties on any operator of a public LPG refuelling facility to ensure safety obligations are met. These facilities are places of work and as such must comply with the Health and Safety at Work Act.

Should a public refuelling facility owner/operator, or their employees, authorise the dispensing of LPG then they are considered to be the "filler". All employees must be aware of their responsibilities to others which include the general public.

Applicable Health and Safety Regulations include the:

- Dangerous Substances and Explosive Atmospheres Regulations;
- Management of Health and Safety at Work Regulations;
- Provision and Use of Work Equipment Regulations;
- Regulatory Reform (Fire Safety) Order;
- ADR³ and the UK Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations.

The public LPG refuelling facility operator should also consider:

- Legal implications under the Regulations listed on page 1;
- The Red Guide - Petrol Filling Stations Guidance on Managing the Risks of Fire & Explosion⁴;
- Their insurance position both with regard to on site activities, responsibilities **and** subsequent use of the cylinder by the customer;
- Their position with regard to weights and measures and consumer legislation;
- Any planning and local authority consents;
- Appropriate signage to ensure that the public is aware of cylinders that cannot be filled;
- Displaying detailed cylinder filling procedures in conformance with BS EN 1439 and UKLPG Code of Practice 12.

Summary of Emergency Procedures

Emergency procedures shall be in place to provide guidance to the employees in the event of:

- Overfilling of a cylinder;
- A leaking cylinder;
- An uncontrolled release of LPG;
- Fire/Explosion.

Note: An overfilled or leaking cylinder must not be allowed to leave the site until made safe.

Summary of filling procedures

LPG cylinders should only be filled by trained and competent personnel.

Filling procedures shall be in place and include:

- A check to ensure the cylinder to be filled is manufactured to a suitable Standard and is specifically designed for use with propane;
- A check to ensure the cylinder to be filled is suitably marked and has a valid test certificate. If manufactured after 2003 the cylinder must also be π marked to show compliance with TPED⁵;
- Cylinders should be re-tested at specified intervals, for user refillable cylinders normally 10 years;
- The condition of the cylinder is checked before filling, with criteria for acceptance/rejection;
- Details on how the cylinder is to be safely filled; and
- Details of the post fill checks to ensure it can be despatched safely.

Note: More details are given in BS EN 1439.

References

- (1) LPG Cylinders - Defined in ADR as a pressure receptacle, this includes the cylinder valve and any fittings.
- (2) Autogas Dispenser - Liquefied Petroleum Gas dispenser located at LPG refuelling facilities.
- (3) ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road.
- (4) The Red Guide - Petrol Filling Stations Guidance on Managing the Risks of Fire & Explosion published by the Energy Institute.
- (5) TPED - Transportable Pressure Equipment Directive.

Further Reading

- UKLPG Codes of Practice; including 10 and 20 provide details on LPG operations.
- HSE Approved Design Standards & Specifications. www.hse.gov.uk/cdg/stdcurr.htm
- BS EN 1439: LPG equipment and accessories, Procedure for checking LPG cylinders before, during and after filling.

Status of UKLPG User Information Sheet (UIS)

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