



Technical Publication

Summary of Inspection and Maintenance of Calor LPG Vessels (Bulk Tanks)

Introduction

LPG at bulk customer sites is stored, in liquid form under pressure, in what are often referred to as bulk tanks. These are, however, technically termed pressure vessels. It is vital to our customer's safety and Calor's reputation that these vessels are maintained in a safe condition throughout their service life. To ensure this is the case, Calor carries out or arranges for the appropriate routine and periodic safety inspections and maintenance action, some of which take place at the customer's premises whilst the remainder are done at specialist preparation depots.

The exact nature and frequency of the inspection and maintenance activities depends on the size and duty of the vessel and is set down in various company specifications. At commercial installations, the **Pressure Systems Safety Regulations apply**. These impose numerous duties, including the requirement to have a formal written scheme for the examination of pressure vessels and Calor applies the same requirements at domestic installations.

Calor's specifications are based on established industry codes of practice and its own vast experience, gained over many years. Although the regulations permit organisations to deem themselves competent to write schemes and carry out inspections, Calor has obtained formal recognition of its competence by gaining accreditation from the **United Kingdom Accreditation Service (UKAS)** as a **ISO 17020 Type B Inspection Body**.

So what does Calor actually do?

Domestic (vapour offtake, up to 2 tonne)

- every gas delivery, a safety check of the vessel, valves and the immediate surroundings - by the driver
- an annual cathodic protection check (for underground vessels only)
- at 10 years from new or full refurbishment, a pressure relief valve change, and for above-ground vessels only, an external examination with ultrasonic thickness check - by trained inspectors
- at 20 years from new or full refurbishment and at each following 10 years at site, as at 10 years plus additional functional and leak checks on valves and fittings.

Note: If a vessel passes through a Calor vessel refurbishment depot at 20 years or later, a full refurbishment is carried out.

Commercial (vapour offtake, up to 2 tonne)

- as Domestic

Commercial (liquid offtake, up to 2 tonne)

- as domestic, plus
- every year, a more formal safety check of the vessel, valves, immediate surrounding, plus any pumps, hoses or fork-lift truck cylinders - by trained contractors or Calor Force Technicians



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Summary of Inspection and Maintenance of Calor LPG Vessels (Bulk Tanks)

Commercial (vapour or liquid offtake over 2 tonne)

- at every gas delivery, a safety check of the vessel, valves and immediate surroundings - by the driver
- every year, a more formal safety check of the vessel, valves, immediate surrounding, plus any pumps, hoses or fork-lift truck cylinders - by trained contractors or Calor Force Technician.
- every 5 years, an external examination and pressure relief valve change - by trained inspectors
- every 10 years, an external and internal examination plus a full valve change - by trained specialists. Note: this is normally done at site, for vessels 7 tonnes and over - by specialist contractors. Smaller vessels are treated as per Domestic.

The information in this document is intended to give guidance and believed to be accurate and represent good practice at the time of publication. It does not replace the need to consult other formal documents where further information may be required.

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