

Gas Information Sheet 14b

Purging Liquefied Petroleum Gas (LPG) Installations



Overview

This gas information sheet explains how to purge liquefied petroleum gas (LPG) installations, and should be read in conjunction with Gas Information Sheet No. 14A - Purging Natural Gas Installation volumes above 0.03 m³ (30 litres).

When purging LPG, special consideration must be given to the increased hazards involved. A risk assessment should be carried out to identify special hazards associated with purging LP Gas.

LPG is a heavier than air gas and has a flammability limit of between 2% and 10% gas in air.

Gas sample test method

Purging LPG to inert gas

Use a suitable gas detector able to read 0.2% gas (10% of the lower explosive limit – LEL) or less to ensure the fuel gas has been eliminated.

Special care is to be taken to ensure that LP Gas, which is heavier than air and accumulates in low places, is fully dispersed before applying an ignition source. Do not purge into a combustion chamber or other confined space.

For an open air purge using LP Gas consideration needs to be given to:

- Proximity of purge gas to potential ignition sources.
- Drains and openings into buildings such as doors, wall vents, air intakes and so on.
- Ensuring that the area is sufficient to allow effective ground level dispersion.
- Checking the prevailing wind direction.
- Identifying low areas; the gradient of the purge area needs to be taken into account to ensure gas will not accumulate in a confined area.

It is recommended that a purge stack be used to allow a more effective dispersion of gas and a gas analyser should be used to ensure a complete purge is achieved safely (minimum 95% gas).

Note: When an open air purge is not practical it may be advisable to use a gas flare in conjunction with a gas analyser. The gas flare should have a suitable means fitted (for example – flame arrestor), of preventing a flashback event (for example purging gas burning back into the consumer piping).

If a flare is to be used, the purge procedure and details of the purge equipment should be provided to Energy Safe Victoria as part of your gas application.

Purging LPG at appliances

Purging to an appliance fitted with a flame safeguard device may require disconnection of the appliance. Care must be taken to prevent an accumulation of LP Gas which could lead to an explosive mixture igniting. Purging to outside will ensure hazards are minimised.

Purging through an appliance burner should be done with a continuous flame positioned at the burner to ensure no hazardous LPG gas accumulation can result.

Who we are

At Energy Safe Victoria we work to keep Victoria energy safe.

We regulate the energy industry and sector to ensure generation, supply and usage uphold safety standards, and engage with the community to raise awareness of energy safety risks.

In everything we do, we strive to deliver on our purpose to keep Victoria energy safe. Always.

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