

LP Gas Guidelines

These guidelines have been developed to help familiarize operators with safety requirements related to the use of LP gas and LP gas appliances. These provisions are accepted national standards developed for the safe operation of LP gas systems on food service vehicle installations, food carts, and catering units.

Safety valves

Tanks manufactured after 1998 are required to have an overfill protection device (OPD). Effective 04/01/02, no cylinder may be filled that does not have an overfilling prevention device. The valve is shaped in a triangular pattern compared to previous circular shutoffs (see Figure A).

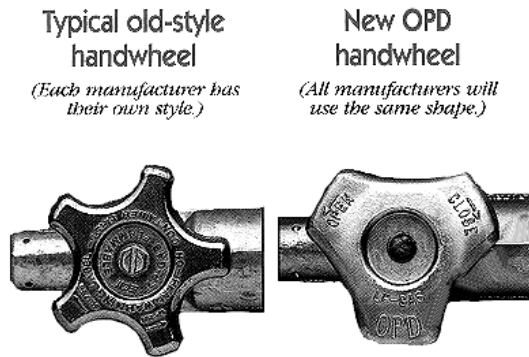


Figure A – Overfilling Prevention Device

LP Gas System Installation

- The LP Gas supply system, including the containers, may be installed on the outside of the vehicle. They may also be stored in a recess or cabinet that is vapor-tight to the inside of the vehicle, while being accessible from and vented to the outside.
- Containers must be installed with adequate road clearance.

Container Mounting

- Fuel containers must be securely mounted to prevent them from jarring loose and slipping or rotating and must stand on a firm and substantially level surface. If necessary, they must be secured in an upright position.

General Provisions: Cylinders, Equipment, Piping, and Appliances.

- Containers owned by a gas company must be properly marked. The name and address of the container supplier or trade name of the container must be provided
- Cylinders must be marked to include the water capacity of the cylinder in pounds, design pressure in pounds per square inch, year of manufacture, and manufacturer's serial number.
- Valves on cylinders must be protected with a collar.
- Cylinders installed on the vehicle frame must be protected from radiant or convected heat from open flame or other burners by the use of a heat shield or by the location of the cylinder(s) on the vehicle to prevent the temperature of the fuel in the cylinder from becoming abnormally high.
- Main shutoff valves on containers must be readily accessible.

Piping

- The piping in systems must be run as directly as is practical from one point to another, and with as few restrictions, such as ells and bends, as conditions will permit.
- Steel tubing must be at least 0.049 in. (1.2 mm) thick.
- Flexibility must be provided in the piping between the cylinder and the gas piping system or regulator.
- The piping system must be designed, installed, supported, and secured in such a manner as to minimize the possibility of damage due to vibration, strains, or wear, and to preclude any loosening while in transit.
- Piping, including hoses, must be installed in a protected location. If installed outside, the piping must be under the vehicle and below any insulation or false bottom. Fastenings or other protection must be installed to prevent damage due to vibration or abrasion.
- At each point where piping passes through sheet metal or a structural member, a rubber grommet or equivalent protection must be installed to prevent chafing.
- Gas piping must be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served. If a branch line is required, the tee connection must be located in the main gas line under the floor and outside the vehicle.

- Exposed parts of the piping system must be either of corrosion-resistant material or adequately protected against exterior corrosion.
- Piping systems, including hose, shall be tested and proven free of leaks.

Appliance Installation

All gas-consuming appliances installed on vehicles must be approved and installed as follows:

- Installation must be made in accordance with the manufacturer's instructions.
- Equipment installed on vehicles shall be considered part of the LP gas system on the vehicle and must be protected against vehicular damage in the same manner as the container appurtenances and connections.
- Whenever the device or appliance is designed to be in operation while the vehicle is in transit, such as a cargo heater or cooler, suitable means to stop the flow of gas in the event of a line break, such as an excess-flow valve, must be installed.
- All gas-fired heating appliances must be equipped with safety shutoffs.
- For installations on vehicles intended for human occupancy, all gas-fired heating appliances, except ranges and illuminating appliances, must be designed or installed to provide for a complete separation of the combustion system from the atmosphere inside the vehicle.
- Combustion air inlets and flue gas outlets must be listed as components of the appliance.

Appliances installed within vehicles must comply with the following:

- Appliances must be readily accessible whether the vehicle is loaded or empty.
- Appliances must be constructed or otherwise protected to prevent damage from cargo shifting or handling.
- Appliances must be located so that a fire at any appliance will not block egress of persons from the vehicle.
- Provision must be made in all appliance installations for a supply of outside air for complete combustion.

CAUTION

A permanent caution must be provided, affixed to either the appliance or the vehicle outside of any enclosure and adjacent to the container(s), and must include the following items:

CAUTION

1. Be sure all appliance valves are closed before opening container valve.
2. Connections at the appliances, regulators, and containers must be checked periodically for leaks with soapy water or its equivalent.
3. Never use a match or flame to check for leaks.
4. Container valves must be closed when equipment is not in use.

General Precautions

- Container valves must be closed when burner is not in use.
- Containers must not be refilled while burners are in use.
- Mobile units containing hotplates and other cooking equipment, including mobile kitchens and catering vehicles, must be provided with at least one approved portable fire extinguisher rated at not less than 10-BC. (NOTE: If grease laden vapors are produced, a 40-BC or K Class extinguisher is required.)

For further information on LP Gas rules and regulations, the following resources may be helpful:

Local Fire Department
National Fire Protection Association
Florida Bureau of LP Gas Inspections 850.921.8001

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GUIDE TO LP GAS ON MOBILE FOOD DISPENSING VEHICLES



Florida Public Food Service Establishments

Division of Hotels and Restaurants

Department of Business and Professional Regulation



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