

**WAC 296-155-275 Liquefied petroleum gas (LP-gas). (1) Approval of equipment and systems.**

(a) Each system must have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.

(b) All cylinders must meet the department of transportation specification identification requirements published in 49 C.F.R. Part 178, Shipping Container Specifications.

(2) **Welding on LP-gas containers.** Welding is prohibited on containers.

**(3) Container valves and container accessories.**

(a) Valves, fittings, and accessories connected directly to the container, including primary shut off valves, must have a rated working pressure of at least 250 p.s.i.g. and must be of material and design suitable for LP-gas service.

(b) Connections to containers, except safety relief connections, liquid level gauging devices, and plugged openings, must have shutoff valves located as close to the container as practicable.

**(4) Safety devices.**

(a) Every container and every vaporizer must be provided with one or more approved safety relief valves or devices. You must arrange these valves to afford free vent to the outer air with discharge not less than 5 feet horizontally away from any opening into a building which is below such discharge.

(b) Shutoff valves must not be installed between the safety relief device and the container, or the equipment or piping to which the safety relief device is connected, except that a shutoff valve may be used where the arrangement of this valve is such that full required capacity flow through the safety relief device is always afforded.

(c) You must not locate safety relief devices and regulator relief vents less than 5 feet in any direction from air openings into sealed combustion system appliances or mechanical ventilation air intakes.

**(5) Dispensing.**

(a) You must perform filling of fuel containers for trucks or motor vehicles from bulk storage containers not less than 10 feet from the nearest masonry-walled building, or not less than 25 feet from the nearest building or other construction and, in any event, not less than 25 feet from any building opening.

(b) You must perform filling of portable containers or containers mounted on skids from storage containers not less than 50 feet from the nearest building.

**(6) Requirements for appliances.**

(a) LP-gas consuming appliances must be approved types.

(b) Any appliance that was originally manufactured for operation with a gaseous fuel other than LP-gas, and is in good condition, may be used with LP-gas only after it is properly converted, adapted, and tested for performance with LP-gas before the appliance is placed in use.

**(7) Containers and regulating equipment installed outside of buildings or structures.** Containers must be upright upon firm foundations or otherwise firmly secured. You must guard against the possible effect on the outlet piping of settling by a flexible connection or special fitting.

**(8) Containers and equipment used inside of buildings or structures.**

(a) When operational requirements make portable use of containers necessary, and their location outside of buildings or structures is

impractical, containers and equipment are permitted to be used inside of buildings or structures in accordance with (b) through (k) of this subsection. In addition, there may be provisions of this section that are applicable to the particular use or occupancy.

(b) "Containers in use" means connected for use.

(c) Systems utilizing containers having a water capacity greater than 2 1/2 pounds (nominal one pound LP-gas capacity) must be equipped with excess flow valves. Such excess flow valves must be either integral with the container valves or in the connections to the container valve outlets.

(d) Regulators, when required, must be either directly connected to the container valves or to manifolds connected to the container valves. The regulator must be suitable for use with LP-gas. Manifolds and fittings connecting containers to pressure regulator inlets must be designed for at least 250 p.s.i.g. service pressure.

(e) You must protect valves on containers having water capacity greater than 50 pounds (nominal 20 pounds LP-gas capacity) from damage while in use or storage.

(f) You must not use aluminum piping or tubing must not be used.

(g) Hose must be designed for a working pressure of at least 250 p.s.i.g. Design, construction, and performance of hose, and hose connections must have their suitability determined by listing by a nationally recognized testing agency. The hose length must be as short as practical. Hoses must be long enough to permit compliance with spacing provisions of (a) through (m) of this subsection, without kinking or straining, or causing hose to be so close to a burner as to be damaged by heat.

(h) Portable heaters, including salamanders, must be equipped with an approved automatic device to shut off the flow of gas to the mainburner, and pilot if used, in the event of flame failure. Such heaters, having inputs above 50,000 BTU per hour, must be equipped with either a pilot, which must be lighted and proved before the main burner can be turned on, or an electrical ignition system.

Note: The provisions of this subdivision do not apply to portable heaters under 7,500 BTU per hour input when used with containers having a maximum water capacity of 2 1/2 pounds.

(i) You must not use container valves, connectors, regulators, manifolds, piping, and tubing as structural supports for heaters.

(j) You must locate containers, regulating equipment, manifolds, pipe, tubing, and hose to minimize exposure to high temperatures or physical damage.

(k) Containers having a water capacity greater than 2 1/2 pounds (nominal one pound LP-gas capacity) connected for use must stand on a firm and substantially level surface and, when necessary, must be secured in an upright position.

(l) The maximum water capacity of individual containers must be 245 pounds (nominal 100 pounds LP-gas capacity).

(m) For temporary heating, you must locate heaters (other than integral heater-container units) at least 6 feet from any LP-gas container. This does not prohibit the use of heaters specifically designed for attachment to the container or to a supporting standard, provided they are designed and installed so as to prevent direct or radiant heat application from the heater onto the containers. You must not direct blower and radiant type heaters toward any LP-gas container within 20 feet.

(n) If two or more heater-container units, of either the integral or nonintegral type, are located in an unpartitioned area on the same

floor, you must separate the container or containers of each unit from the container or containers of any other unit by at least 20 feet.

(o) When heaters are connected to containers for use in an unpartitioned area on the same floor, the total water capacity of containers, manifolded together for connection to a heater or heaters, must not be greater than 735 pounds (nominal 300 pounds LP-gas capacity). You must separate such manifolds by at least 20 feet.

(p) Storage of containers awaiting use must be in accordance with subsections (10) and (11) of this section.

**(9) Multiple container systems.**

(a) You must arrange valves in the assembly of multiple container systems so that replacement of containers can be made without shutting off the flow of gas in the system. This provision is not to be construed as requiring an automatic changeover device.

(b) Heaters must be equipped with an approved regulator in the supply line between the fuel cylinder and the heater unit. Cylinder connectors must be provided with an excess flow valve to minimize the flow of gas in the event the fuel line becomes ruptured.

(c) Regulators and low-pressure relief devices must be rigidly attached to the cylinder valves, cylinders, supporting standards, the building walls, or otherwise rigidly secured, and must be so installed or protected from the elements.

**(10) Storage of LPG containers.** You must not store LPG within building.

**(11) Storage outside of buildings.**

(a) Storage outside of buildings, for containers awaiting use, must be located from the nearest building or group of buildings, in accordance with Table D-3:

**TABLE D-3**

Quantity of LP-gas stored:	Distance (feet)
500 lbs. or less	0
501 to 6,000 lbs.	10
6,001 to 10,000 lbs.	20
Over 10,000 lbs.	25

(b) Containers must be in a suitable ventilated enclosure or otherwise protected against tampering, or possible damage by vehicular traffic.

**(12) Fire protection.** You must provide storage locations with at least one approved portable fire extinguisher having a rating of not less than 20-B:C.

Note: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-275, filed 4/19/16, effective 5/20/16. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 01-17-033, § 296-155-275, filed 8/8/01, effective 9/1/01. Statutory Authority: RCW 49.17.040 and 49.17.050. WSR 86-03-074 (Order 86-14), § 296-155-275, filed 1/21/86; Order 76-29, § 296-155-275, filed 9/30/76; Order 74-26, § 296-155-275, filed 5/7/74, effective 6/6/74.]