

# STANDARDS FOR STORAGE AND USE OF PORTABLE LIQUEFIED PETROLEUM GAS OUTDOOR HEATERS

Authority Cited: California Fire Code (2022 CFC)

Portable liquefied petroleum gas (i.e., LPG/Propane) heaters may be permitted in outdoor locations provided that the use complies with the requirements described in this document.

## A. Requirements

### 1. LPG Heaters In Use:

- a. LPG heaters shall be listed and installed and maintained in accordance with their listing. [CFC §605.5.2.2.1]
- b. LPG heaters in use shall be separated from combustibles as set forth in the manufacturer's product listing but not less than 5 feet. In the absence of an owner's manual stating otherwise, the horizontal and vertical clearances shall be not less than 5 feet. *[Note: Most heaters have distance requirements stated on a permanently attached plate.]* [CFC §605.5.2.1.3]
- c. LPG heaters in use shall not be located less than 5 feet from building openings. [CFC Table 6104.3]
- d. Structures such as walls, solid fences, earth or concrete barriers and other similar structures shall be avoided around or over LPG heaters. *[Note: The base of the heater contains the LPG cylinder, and the presence of such structures can create significant hazards, such as pocketing of escaping gas, interference with the application of cooling water by firefighters, and the redirection of flames against the LPG cylinders.]*
- e. LPG heaters are prohibited inside tents and temporary membrane structures; on exterior balconies; and inside any occupancy when connected to the fuel gas container. [CFC §605.5.2.1.1]
- f. Sources of ignition shall be prohibited within 5 feet of any LPG heater. "NO SMOKING" signs shall be conspicuously posted at affected locations. [CFC §305.1 and §310.3]
- g. LPG heaters shall not be located within 5 feet of exits or exit discharges. [CFC §605.5.2.1.4]



### 2. LPG Cylinders in Storage:

- a. LPG cylinders larger than 2½ pound water capacity (nominal 1 pound of LPG) shall not be stored in buildings. [CFC §6109.9]
- b. LPG cylinders shall be located in a manner which minimizes exposure to excessive temperature rise, physical damage, or tampering. [CFC §6109.2]

- c. LPG cylinders shall not be located on roofs. [CFC §6109.6]
- d. LPG cylinders shall not be located in basements, pits or similar locations where heavier-than-air gas might collect. [CFC §6109.7]
- e. When exposed to probable vehicular traffic, LPG cylinders shall be suitably protected from impact. [CFC §6109.13]
- f. LPG cylinders shall be stored or used in an upright position. Cylinder outlet valves shall be closed or plugged. [CFC §§6109.3 and 6109.8]
- g. LPG cylinder storage outside of buildings for cylinders shall be located at least 5 feet from any doorway or opening in a building frequented by the public where occupants have at least two exits. For buildings or sections of buildings having only one exit, the location of such storage from the doorway or opening shall be at least 10 feet. The maximum quantity of LPG allowed in storage is 720 pounds (a 5-gallon cylinder equals 20 lbs. of LPG). Contact your Fire Department for storage requirements of more than 500 pounds of LPG. [CFC Table 6109.12]
- h. LPG cylinders shall be protected by either: [CFC §6109.15] 1 through 4.
  - 1. A lockable ventilated metal locker or rack that prevents tampering with valves and pilferage of the cylinder.
  - 2. Cylinders shall be available only by authorized personnel or by use of an automated exchange system in accordance with Section 6109.15.1
  - 3. A sign shall be posted on the entry door of the business operating the cylinder exchange stating "DO NOT BRING LP-GAS CYLINDERS INTO THE BUILDING" or similar approved wording.
  - 4. An emergency contact information sign shall be posted within 10 feet of the cylinder storage cabinet. The content, lettering, size, color and location of the required sign shall be as required by the fire code official.

*[Note: The presence of such structures can create significant hazards, such as pocketing of escaping gas, interference with the application of cooling water by firefighters and the redirection of flames against the LPG cylinders.]*