



# FIRE PREVENTION GUIDELINE

<b>Title: Storage and Use of Portable Liquefied Petroleum Gas (LPG) Heaters</b>		
<b>Number:</b> FPG-24	<b>Effective Date:</b> 01/01/2023	<b>Revised Date:</b> 03/01/2023
<b>Code References:</b> California Fire Code (CFC), California Code of Regulations (CCR) Title 19, Merced Municipal Code (MMC)		
<b>Note:</b> <i>This guideline is a summary of Fire Department clarifications and interpretations of City and State Codes and nationally recognized standards in accordance with the currently adopted edition of the Fire Code. Information contained herein applies to typical circumstances and may not address all situations.</i>		

### Scope

This Guideline has been developed to assist the public and business community with use and storage requirements and maintenance of portable LPG heaters.

### Codes and Guidelines

This guideline shall apply the use and storage of portable LPG heaters in accordance with the California Fire Code, California Code of Regulations, Title 19 and the Merced Municipal Code.

### Permits Required

An operational permit may be required. Contact the City of Merced Fire Prevention Bureau at 209-385-4777 for information.

### Specific Requirements

#### 1. Use of Portable LPG Heaters

- a. LPG heaters shall be installed and maintained in accordance with their listing.
- b. LPG heaters in use shall be separated from combustibles as set forth in the manufacturer’s product listing. In the absence of an owner’s manual stating otherwise, the horizontal and vertical clearances shall be 5 feet. [Note: Most heaters have distance requirements stated on a permanently attached plate.]
- c. LPG heaters in use shall not be located less than 3 feet from building openings.
- d. Structures such as walls, solid fences, earth or concrete barriers and other similar structures shall be avoided around or over LPG heater [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, canopies, and temporary membrane structures.



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- f. Sources of ignition shall be prohibited within 5 feet of any LPG heater. "NO SMOKING" signs shall be posted at affected locations.
- g. LPG heaters shall not be located in exit pathways.

### 2. Storage of Portable LPG Heaters

- a. LPG cylinders larger than 2½-pound water capacity (nominal 1 pound of LPG) shall not be stored in buildings.
- b. LPG cylinders shall be located in a manner which minimizes exposure to excessive temperature rise, physical damage, or tampering.
- c. LPG cylinders shall not be located on roofs.
- d. LPG cylinders shall not be located in basements, pits or similar locations where heavier-than-air gas might collect.
- e. When exposed to probable vehicular traffic, LPG cylinders shall be suitably protected from impact.
- f. LPG cylinders shall be stored or used in an upright position. Cylinder outlet valves shall be closed or plugged.
- 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 500 pounds (a 5-gallon cylinder equals 20 lbs. of LPG). Contact the City of Merced Fire Prevention Bureau for storage requirements of more than 500 pounds of LPG.
- h. LPG cylinders shall be protected by either:
  - i. An enclosure with at least a 6-foot high industrial type fence; or
  - ii. A lockable ventilated metal locker or rack that prevents tampering with valves and pilferage of the cylinder. [Note: A chain link fence is the type of fence most commonly used for security. A solid fence is not allowed because it is important to allow air to circulate freely.]
- i. Structures such as walls, solid fences, earth or concrete barriers and other similar structures shall be avoided around or over LPG cylinders. [Note: The presence of such structures can create significant hazards,



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