



## **PROPANE CYLINDER EXCHANGE**

### **SCOPE**

This publication outlines the requirements and limitations for storage and handling of portable propane containers awaiting use or resale.

### **OVERVIEW**

The storage of portable LP-gas containers of 1,000 pounds or less, whether full, partially filled or empty, at consumer sites or distribution points, and for resale by dealers or resellers shall comply with this guideline.

### **EXPOSURE HAZARDS**

LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle protection shall be provided as required by the fire code official.

### **LP-GAS CYLINDER EXCHANGE FOR RESALE**

In addition to other applicable requirements of this chapter, facilities operating cylinder exchange stations for LP-gas that are accessible to the public shall comply with the following requirements.

1. Cylinders shall be secured in a lockable, ventilated metal cabinet or other approved enclosure.
2. Cylinders shall be accessible only by authorized personnel or by use of an automated exchange system.
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.

### **AUTOMATED CYLINDER EXCHANGE STATIONS**

Cylinder exchange stations that include an automated vending system for exchanging cylinders shall comply with the following additional requirements:

1. The vending system shall only permit access to a single cylinder per individual transaction.
2. Cabinets storing cylinders shall be designed such that cylinders can only be placed inside when they are oriented in the upright position.

3. Devices operating door releases for access to stored cylinders shall be permitted to be pneumatic, mechanical or electrically powered.
4. Electrical equipment inside of or within 5 feet (1524 mm) of a cabinet storing cylinders, including but not limited to electronics associated with vending operations, shall comply with the requirements for Class 1, Division 2 equipment in accordance with NFPA 70.
5. A manual override control shall be permitted for use by authorized personnel. On newly installed cylinder exchange stations, the vending system shall not be capable of returning to automatic operation after a manual override until the system has been inspected and reset by authorized personnel.
6. Inspections shall be conducted by authorized personnel to verify that all cylinders are secured, access doors are closed and the station has no visible damage or obvious defects, which necessitate placing the station out of service. The frequency of inspections shall be as specified by the fire code official.

### **VEHICLE IMPACT PROTECTION**

Vehicle impact protection is required by this code and shall be provided by posts or by other approved physical barriers that comply with this guideline.

### **POSTS**

Guard posts shall comply with all of the following requirements:

1. Constructed of steel not less than 4-inches in diameter and filled with concrete.
2. Spaced not more than 4 feet between posts on center.
3. Set not less than 3 feet deep in concrete footing of not less than a 15-inch diameter.
4. Set with the top of the posts not less than 3 feet above ground.
5. Located not less than 3 feet from the protected object.

### **OTHER BARRIERS**

Physical barriers shall be a minimum of 36 inches in height and shall resist a force of 12,000 pounds applied 36 inches above the adjacent ground surface.