



Key Excerpts

Storage, Security Products and Environmental



***See pg. 117

****See pg. 117

NFPA 58 LP Gas Code – 2008 Edition****:

8.4.2 Protection of Cylinders.

8.4.2.1 Cylinders at a location open to the public shall be protected by either of the following:

- (1) An enclosure in accordance with 6.18.4.2 or
- (2) A lockable ventilated enclosure of metal exterior construction.

8.4.1 Location of Storage Outside of Buildings.

8.4.1.1 Storage outside of buildings for cylinders awaiting use, resale, or part of a cylinder exchange point shall be located as follows:

1. At least 5 ft (1.5m) from any doorway or opening in a building frequented by the public where occupants have at least two means of egress as defined by NFPA 101, Life Safety Code.
2. At least 10 ft (3m) from any doorway or opening in a building or sections of a building that has only one means of egress
3. At least 20 ft (6.1m) from any automotive service station fuel dispenser

OSHA 29 CFR1910.144 Liquid Petroleum Gas

Storage within buildings not frequented by the public (such as industrial buildings.) The quantity of LP-gas stored shall not exceed 300 pounds (approximately 2,550 cubic feet in vapor form).

OSHA 29 CFR1910.253(b)(2) Storage of Cylinders - General

(b)(2)(ii) Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 (6.1m) feet from highly combustible materials such as oil or excelsior. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

(b)(3)(i) For storage in excess of 2,000 cubic feet (56m³) total gas capacity of cylinders or 300 pounds (135.9 kg) of liquefied petroleum gas, a separate room or compartment conforming to the requirements specified in paragraphs (f)(6)(i)(H) and (f)(6)(i)(I) of this section shall be provided, or cylinders shall be kept outside or in a special building. Special buildings, rooms or compartments shall have no open flame for heating or lighting and shall be well ventilated. They may also be used for storage of calcium carbide in quantities not to exceed 600 (271.8 kg) pounds, when contained in metal containers complying with paragraphs (g)(1)(i) and (g)(1)(ii) of this section.

CSA International B149.2 5.1.7:

The relief valve shall have direct communication at all times with the vapour space of the cylinder.

CSA International B149.2 5.5.2.1(c):

The storage cabinet (iii) wall or top cover material shall be either metal wire of not less than No.9 SWG (3.7 mm), having openings not greater than 2 x 2 in (50 x 50 mm), or sheet metal;

(iv) shall be ventilated to the outside air on a minimum of two sides at the top and bottom of the cabinet walls; and
(v) shall be securely anchored in an upright position.

NFPA Code 30 – 2008 Edition***

Chapter 14 Hazardous Materials Storage Lockers.

14.1 Scope. This chapter shall apply to the storage of liquids in movable, modular, prefabricated storage lockers, specifically designed and manufactured for storage of hazardous materials, in the following:

- (1) Containers that do not exceed 119 gal (450 L) individual capacity
- (2) Portable tanks that do not exceed 660 gal (2500 L) individual capacity
- (3) Intermediate bulk containers that do not exceed 793 gal (3000 L) individual capacity.

14.2 Definitions Specific to Chapter 14. (Reserved)

14.3 General Requirements.

14.3.1 Hazardous materials storage lockers that are used as liquid storage rooms shall meet the requirements of Chapter 9.

14.3.2 Sections 14.4 and 14.5 shall apply to storage of flammable and combustible liquids in hazardous materials storage lockers (hereinafter referred to as lockers) that are located outside.

14.4 Design and Construction of Hazardous Materials Storage Lockers.

14.4.1 The design and construction of a locker shall meet all applicable local, state, and federal regulations and requirements and shall be subject to the approval of the authority having jurisdiction.

14.4.2 Movable prefabricated structures that have been examined, listed, or labeled by an organization acceptable to the authority having jurisdiction for use as a hazardous materials storage facility shall be acceptable.

14.4.3 Lockers shall not exceed 1500 ft² (140 m²) gross floor area.

14.4.4 Vertical stacking of lockers shall not be permitted.

14.4.5 Where electrical wiring and equipment are required, they shall comply with Chapter 7 and Section 9.12.

14.4.6 Where dispensing or filling is permitted inside a locker, operations shall comply with the provisions of Chapter 18.

14.4.7 Ventilation shall be provided in accordance with Section 9.14.

14.4.8 Lockers shall include a spill containment system to prevent the flow of liquids from the structure under emergency conditions.

14.4.8.1 The containment system shall have sufficient capacity to contain 10 percent of the volume of containers allowed in the locker or the volume of the largest container, whichever is greater.

14.5 Designated Sites for Hazardous Materials Storage Lockers.

14.5.1 Lockers shall be located on a designated approved site on the property.

14.5.2 The designated site shall be arranged to provide the minimum separation distances specified in Table 14.5.2 between individual lockers, from locker to property line that is or can be built upon, and from locker to nearest side of public ways or to important buildings on the same property.

14.5.3 Once the designated site is approved, it shall not be changed without the approval of the authority having jurisdiction.

14.5.4 More than one locker shall be permitted on a designated site, provided that the separation distance between individual lockers is maintained in accordance with Table 14.5.2.

14.5.5 Where the approved designated storage site is accessible to the general public, it shall be protected from tampering or trespassing.