Codes and Regulations

Key Excerpts

Safety Cabinets
Storage Products
Security Products

The following codes and regulations can be found in Justrite's Catalog No. 104.

OSHA 29 CFR 1910.106(e)(2)(ii)(b):
Incidental storage or use of flammable and combustible liquids.
(b) The quantity of liquid that may be located outside of an inside storage room or storage cabinet in a building or in any one fire area of a building shall not exceed:
(1) 25 gallons of Class IA liquids in containers
(2) 120 gallons of Class IB, IC, II or III liquids in containers
(3) 660 gallons of Class IB, IC, II or III liquids in a single portable tank

OSHA 29 CFR 1910.106(d)(3)(i&ii):
Design, construction, and capacity of storage cabinets - (i) Maximum capacity. Not more than 60 gallons of Class I or Class II liquids, nor more than 120 gallons of Class III liquids may be stored in a storage cabinet.
(ii) Fire resistance. Storage cabinets shall be designed and constructed to limit the internal temperature to not more than 325°F. when subjected to a 10-minute fire test using the standard time-temperature curve as set forth in Standard Methods of Fire Tests of Building Construction and Materials, NFPA 251-1969. All joints and seams shall remain tight and the door shall remain securely closed during the fire test. Cabinets shall be labeled in conspicuous lettering, "Flammable–Keep Fire Away."(a) Metal cabinets constructed in the following manner shall be deemed to be in compliance. The bottom, top, door, and sides of cabinet shall be at least No. 18 gauge sheet iron and double walled with 1½" air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, and the door sill shall be raised at least 2" above the bottom of the cabinet.
(ii)(b) Wooden cabinets constructed in the following manner shall be deemed in compliance. The bottom, sides, and top shall be constructed of an approved grade of plywood at least 1 inch in thickness, which shall not break down or delaminate under fire conditions. All joints shall be rabbeted and shall be fastened in two directions with flathead woodscrews. When more than one door is used, there shall be a rabbeted overlap of not less than 1 inch. Hinges shall be mounted in such a manner as not to lose their holding capacity due to loosening or burning out of the screws when subjected to the fire test.

International Fire Code*:
3404.3.2 Liquid storage cabinets.
Where other sections of this code require that liquid containers be stored in storage cabinets, such cabinets and storage shall be in accordance with Sections 3404.3.2.1 through 3404.3.2.3.
3404.3.2.1.1 Materials. Cabinets shall be listed in accordance with UL 1275, or constructed of approved wood or metal in accordance with the following:
1. Unlisted metal cabinets shall be constructed of steel having a thickness of not less than 0.044 inch (1.12 mm) (18 gage). The cabinet, including the door, shall be double walled with 1-1/2 inch (38 mm) airspace between the walls. Joints shall be riveted or welded and shall be tight fitting.
3404.3.2.1.2 Labeling. Cabinets shall be provided with a conspicuous label in red letters on contrasting background which reads:
FLAMMABLE–KEEP FIRE AWAY.
3404.3.2.1.3 Doors. Doors shall be well fitted, self-closing and equipped with a three-point latch.
3404.3.2.1.4 Bottom. The bottom of the cabinet shall be liquid tight to a height of at least 2 inches (51 mm).

NFPA 1, The Uniform Fire Code –2006 Edition**:
60.1.2.23 Hazardous Materials Storage Cabinets.
(d.) Doors shall be well fitted, self-closing, and equipped with a self-latching device.

NFPA Code 30 – 2008 Edition***:
9.5.1 The volume of Class I, Class II, and Class IIIA liquids stored in an individual storage cabinet shall not exceed 120 gal (460 L).
9.5.2 The total aggregate volume of Class I, Class II, and Class IIIA liquids in a group of storage cabinets shall not exceed the maximum allowable quantity of flammable and combustible liquids per control area based on the occupancy where the cabinets are located.
9.5.4 Storage cabinets shall not be required by this code to be ventilated for fire protection purposes.
9.5.4.1 If not ventilated, storage cabinet vent openings shall be sealed with the bungs supplied with the cabinet or with bungs specified by the cabinet manufacturer.
9.5.4.2 If ventilated for any reason, the storage cabinet vent openings shall be ducted directly to outdoors in such a manner that will not compromise the specified performance of the cabinet and in a manner that is acceptable to the authority having jurisdiction.

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Key
Excerpts

Storage Products
Security Products
Environmental

***See pg. 112

****See pg. 112

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 (56m(3)) 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.

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.