Clovis Fire Department

Standard # 23

DESIGN AND CONSTRUCTION OF INSIDE STORAGE AND HANDLING ROOMS

A. Inside storage and handling rooms shall be constructed to meet the requirements of a Group H, Division 2 Occupancy as defined in the Building Code.

   When an automatic sprinkler is provided, the system shall be designed and installed in an approved manner for extra hazardous locations. Openings to other rooms or buildings shall be provided with noncombustible liquid-tight raised sills or ramps at least 4 inches in height or the floor in the room shall be at least 4 inches below surrounding floors. A permissible alternate to the sill or ramp is an open-grated trench inside of the room, extending 1 foot wider than the door opening, which drains to a safe location. The room shall be provided with approved self-closing fire doors.

B. Electrical wiring and equipment located in inside storage and handling rooms shall be approved for Class 1, Division 1 hazardous locations in accordance with the Electrical Code.

C. Ventilation shall be designed to provide for a complete change of air within the room at least six times per hour. Ventilation shall be installed in accordance with the provisions of U. B. C. Standard No. 9-3, “Blower and Exhaust Systems.” It shall be controlled by a switch located outside of the door. The ventilation equipment and any lighting fixtures shall be operated by the same switch. A pilot light shall be installed adjacent to the switch if Class 1 flammable liquids are dispensed or used within the room.

D. Heating shall be restricted to low-pressure steam or hot water and to electric units approved for Class 1 Hazardous Locations.

E. Adequate explosion venting shall be provided in accordance with an approved design.

F. Exit facilities shall be provided in accordance with the Building Code.

G. Drainage facilities shall be provided to direct liquid leakage and fire-protection water to a safe location away from the building, any important valve or adjoining property.

H. Emergency drainage systems containing Classes I, II and III-A liquids connected to a public sewer or discharging into public waterways shall be equipped with traps or separators to prevent flammable or combustible liquids from entering the public sewer or waterways.

STORAGE IN INSIDE STORAGE AND HANDLING ROOMS

A. Storage in inside storage and handling rooms shall comply with Table No. 79.405.

TABLE NO. 79.405

Automatic Extinguishing System Provided	Fire Resistance	Maximum Size	Total Gallons Allowed
Yes	2 Hour	500 Square Feet	5,000
No	2 Hour	500 Square Feet	2,000
Yes	1 Hour	150 Square Feet	1,000
No	1 Hour	150 Square Feet	500

B. Inside storage and handling rooms shall contain at least one aisle with a minimum width of 3 feet. Storage shall be no closer than 3 feet to ceilings or automatic sprinklers.

C. Containers under 30-gallon capacity shall not be stacked more than 3 feet or 2 containers high, whichever is greater, unless on fixed shelving or otherwise satisfactorily secured. Containers over 30-gallon capacity shall not be stacked one upon the other.

DESPENSING IN INSIDE STORAGE AND HANDLING ROOMS

A. The dispensing of Class I, II or III-A liquids is limited to not more than three 55-gallon drums at any one time and shall be by approved pumps taking suction through the top of the container. Alternate methods must have the approval of the chief.

B. All mixing, blending and similar operations involving the use of Class I, II or III-A liquids shall be performed in an inside storage and handling room of two-hour fire-resistive construction; such construction shall be in accordance with the Building Code.