

## Chapter 6 Bulk Plants and Terminals

## 6-1 Storage.

6-1.1 Class I liquids shall be stored in closed containers, or in storage tanks aboveground outside of buildings, or underground in accordance with Chapter 2.

6-1.2 Class II and Class III liquids shall be stored in containers, or in tanks within buildings or aboveground outside of buildings, or underground in accordance with Chapter 2.

6-1.3 Containers of liquids when piled one upon the other shall be separated by dunnage sufficient to provide stability and to prevent excessive stress on container walls. The height of pile shall be consistent with stability and strength of containers.

6-1.4 Piping, Valves and Fittings. Piping systems shall be in accordance with Chapter 3.

## 6-2 Buildings.

6-2.1 Exits. Rooms in which liquids are stored or handled by pumps shall have exit facilities arranged to prevent occupants being trapped in the event of fire. NFPA 101, *Life Safety Code*, provides information on the number and location of exits.

6-2.2 Heating. Rooms in which Class I liquids are stored or handled shall be heated only by means not constituting a source of ignition, such as steam or hot water. Rooms containing heating appliances involving sources of ignition shall be located and arranged to prevent entry of flammable vapors.

## 6-2.3 Ventilation.

6-2.3.1 Ventilation shall be provided for all rooms, buildings, or enclosures in which Class I liquids are pumped or dispensed. Design of ventilation systems shall take into account the relatively high specific gravity of the vapors. Ventilation may be provided by adequate openings in outside walls at floor level unobstructed except by louvers or coarse screens. Where natural ventilation is inadequate, mechanical ventilation shall be provided. NFPA 91, *Standard for Installation of Blower and Exhaust Systems for Dust, Stock and Vapor Removal or Conveying*, provides information on the installation of mechanical exhaust systems.

6-2.3.2 Class I liquids shall not be stored or handled within a building having a basement or pit into which flammable vapors may

travel, unless such area is provided with ventilation designed to prevent the accumulation of flammable vapors therein.

6-2.3.3 Containers of Class I liquids shall not be drawn from or filled within buildings unless provision is made to prevent the accumulation of flammable vapors in hazardous concentrations. Where mechanical ventilation is required, it shall be kept in operation while flammable liquids are being handled.

## 6-3 Loading and Unloading Facilities.

6-3.1 Tank vehicle and tank car loading or unloading facilities shall be separated from aboveground tanks, warehouses, other plant buildings or nearest line of adjoining property that can be built upon by a distance of at least 25 ft (7.62 m) for Class I liquids and at least 15 ft (4.57 m) for Class II and Class III liquids, measured from the nearest position of any fill spout. Buildings for pumps or shelters for personnel may be a part of the facility.

6-3.2 Equipment such as piping, pumps, and meters used for the transfer of Class I liquids between storage tanks and the fill stem of the loading rack shall not be used for the transfer of Class II or Class III liquids.

## 6-3.3 Top Loading.

6-3.3.1 When top loading a tank vehicle with Class I and Class II liquids without vapor control, valves used for the final control of flow shall be of the self-closing type and shall be manually held open except where automatic means are provided for shutting off the flow when the vehicle is full.

6-3.3.2 When top loading a tank vehicle with vapor control, flow control shall be in accordance with 6-3.4.1 and 6-3.4.2.

## 6-3.4 Bottom Loading.

6-3.4.1 When bottom loading a tank vehicle, with or without vapor control, a positive means shall be provided for loading a predetermined quantity of liquid, together with an automatic secondary shut-off control to prevent overfill. The connecting components between the loading rack and the tank vehicle required to operate the secondary control shall be functionally compatible.

6-3.4.2 When bottom loading a tank vehicle that is equipped for vapor control, but when vapor control is not used, the tank shall be vented to the atmosphere to prevent pressurization of the tank. Such venting shall be at a height not lower than the top of the cargo tank on the vehicle.

I-7  
10/17/84  
50-400-02

NUCLEAR REGULATORY COMMISSION

Docket No. 50-400 Official Est. No. 7

In the matter of Sharon Harris

Staff \_\_\_\_\_

Applicant \_\_\_\_\_

Ignorance ☒ IDENTIFIED ☒

Can. & Distr. \_\_\_\_\_ RECEIVED ☒

Contractor \_\_\_\_\_ REJECTED ☒

Other \_\_\_\_\_

Director WRB DATE 10-17-84

Witness \_\_\_\_\_

