

**International Fire Code, 2009 Edition*******

2704.2.3 Containment Pallets. When used as an alternative to spill control and secondary containment for outdoor storage in accordance with the exception in Section 2704.2, containment pallets shall comply with all of the following:

1. A liquid-tight sump accessible for visual inspection shall be provided
2. The sump shall be designed to contain not less than 66 gallons (250L)
3. Exposed surfaces shall be compatible with material stored.
4. Containment pallets shall be protected to prevent collection of rainwater within the sump

NFPA Code 30 — 2008 Edition:***

9.13.1 Storage areas shall be designed and operated to prevent the discharge of liquids to public waterways, public sewers, or adjoining property, unless such discharge has been specifically approved.

9.13.2 Where individual containers exceed 10 gal (38L), curbs, scuppers, drains, or other suitable means shall be provided to prevent flow of liquids under emergency conditions into adjacent building areas.

Spill Prevention, Control and Countermeasures (SPCC) Compliant

What is SPCC and who is regulated by the rule? SPCC is short for Spill Prevention Control and Countermeasures. The rule was developed under the authority of The Federal Water Pollution Control Act and The Clean Water Act, and is designed to prevent oil pollution in US waterways. The SPCC Rule outlines the requirement of owners and operators of on shore facilities and offshore facilities to prepare and implement a Spill Prevention Control and Countermeasures plan.

The SPCC Rule is mandated for facilities with **1,320 gallons of above ground storage or 42,000 gallons of buried storage** of Petroleum Oils and Non-Petroleum Oils, Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (including Oils from Seeds, Nuts, Fruits, and Kernels).

Application to spill control products, The SPCC Rule outlines the requirement of an owner and operator to demonstrate in their SPCC plans considerations for secondary containment solutions for containers 55 gallons and larger. Each secondary containment shall be as follows:

- 1) To hold the entire capacity of the largest container.
- 2) To have sufficient freeboard to hold precipitation.

Notes:

- 1) Freeboard: the vertical distance to the lowest point of over flow.
- 2) Adequate freeboard needs to be determined by the owner, or the operator or their engineer as outlined in their plan.
- 3) Pallets that are sheltered do not require freeboard to hold precipitation. This would be implied under "good engineering practices."

OSHA 29 CFR 1910.106(d)(4)(v):

Storage in inside storage rooms. In every inside storage room there shall be maintained one clear aisle at least 3 feet wide. Containers over 30 gallons capacity shall not be stacked one upon the other. Dispensing shall be by approved pump or self-closing faucet only.

OSHA 29 CFR 1910.106(e)(2)(iv)(d):

Flammable or combustible liquids shall be drawn from or transferred into vessels, containers, or portable tanks within a building only through a closed piping system, from safety cans, by means of a device drawing through the top, or from a container or portable tanks by gravity through an approved self-closing valve. Transferring by means of air pressure on the container or portable tanks shall be prohibited.

OSHA 29 CFR 1910.106(d)(2)(ii):

Emergency venting. Each portable tank shall be provided with one or more devices installed in the top with sufficient emergency venting capacity to limit internal pressure under fire exposure conditions to 10 psig, or 30 percent of the bursting pressure of the tank, whichever is greater. The total venting capacity shall be not less than that specified in paragraphs (b)(2)(v)(c) or (e) of this section. At least one pressure-activated vent having a minimum capacity of 6,000 cubic feet of free air (14.7 psia and 60°F) shall be used. It shall be set to open at not less than 5 psig. If fusible vents are used, they shall be actuated by elements that operate at a temperature not exceeding 300°F.

The Clean Air Act Amendments of 1990 have mandated Hazardous Organic National Emission Standards for Hazardous Air Pollutants, known as the HON Rule. EPA encourages control of these "fugitive emissions."

EPA 40 CFR 264.173: Management of containers.

- (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
- (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

OSHA 29 CFR 1910.106(e)(6)(ii):

Grounding. Class I liquids shall not be dispensed into containers unless the nozzle and container are electrically interconnected. Where the metallic floorplate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of a bond wire, the provisions of this section shall be deemed to have been complied with.

Key Excerpts

Environmental Products Drum Equipment



*** See pg. 117

*****See pg. 117