

## § 151.45-6

equal in dimensions to the DOT standard tank car "Dangerous" placard (10¾ inches square or larger) and shall display a circle (10 inches in diameter or larger) with alternating quadrants of white and red, and so mounted that the red quadrants are centered on the vertical axis. The shipper and/or owner of the barge shall be responsible for the installation of the required placards or signs, including maintenance of them while such barge is in temporary storage with cargo aboard. The person in charge of the towing vessel shall be responsible for the continued maintenance of the placards or signs while such barge is in transit.

### § 151.45-6 Maximum amount of cargo.

(a) Tanks carrying liquids or liquefied gases at ambient temperatures regulated by this subchapter shall be limited in the amount of cargo loaded to that which will avoid the tank being liquid full at 105 °F if insulated, or 115 °F if uninsulated. If specific filling densities are designated in Subpart 151.50 of this part, they shall take precedence over that noted above.

(b) Refrigerated and semirefrigerated tanks shall be filled so that there is an outage of at least 2 percent of the volume of the tank at the temperature corresponding to the vapor pressure of the cargo at the safety relief valve setting. A reduction in the required outage may be permitted by the Commandant when warranted by special design considerations. Normally, then, the maximum volume to which a tank may be loaded is:

$$V_L = 0.98d_r V + d_L$$

where:

$V_L$  = Maximum volume to which tank may be loaded.

$V$  = Volume of tank.

$d_r$  = Density of cargo at the temperature required for a cargo vapor pressure equal to the relief valve setting.

$d_L$  = Density of cargo at the loading temperature and pressure.

### § 151.45-7 Shipping papers.

Each barge carrying dangerous cargo shall have on board a bill of lading, manifest, or shipping document giving the name of shipper, location of the loading point, and the kind, grade, and approximate quantity by compartment

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of each cargo in the barge. Such manifest or bills of lading may be made out by the shipper, master of the towing vessel, owner, or agent of the owner. However, in the case of unmanned barges the master of the towing vessel shall either have a copy of the shipping papers for each barge in his tow or he shall make an entry in the towing vessel's log book giving the name of the shipper, location where the barge was loaded, and the kind, grade, and quantity of cargo by compartment in the barge. The barge shall not be delayed in order to secure the exact quantities of cargo.

### § 151.45-8 Illness, alcohol, drugs.

A person who is under the influence of liquor or other stimulants, or is so ill as to render him unfit to perform service shall not be permitted to perform any duties on the barge.

### § 151.45-9 Signals.

While fast to a dock, a vessel during transfer of bulk cargo shall display a red flag by day or a red light by night, which signal shall be so placed that it will be visible on all sides. When at anchor, a vessel during transfer of bulk cargo shall display a red flag by day, placed so that it will be visible on all sides. This flag may be metallic.

## Subpart 151.50—Special Requirements

EDITORIAL NOTE: Nomenclature changes to subpart 151.50 appear at 60 FR 50465, Sept. 29, 1995, and 61 FR 50732, Sept. 27, 1996.

### § 151.50-1 General.

Special requirements found in this subpart pertain to specific cargoes and to similar groups of cargoes. These requirements are in addition to and take precedence over any other requirements found in these regulations.

### § 151.50-5 Cargoes having toxic properties.

When table 151.05 refers to this section, the following apply:

(a) [Reserved]

(b) Independent tanks shall be designed and tested for a head of at least 8 feet above the top of the tank using the specific gravity of the product to