

## § 154.350

when tested with a fire hose at not less than 207 kPa gauge (30 psig);

(2) Have self-closing doors with no latches or other devices for holding them open;

(3) Have an audible and visual alarm on both sides which are actuated when both door securing devices are in other than the fully closed position at the same time;

(4) Have mechanical ventilation in the space between the doors from a gas-safe area;

(5) Have a pressure greater than that of the gas-dangerous area on the weather deck;

(6) Have the rate of air change in the space between the doors of at least 8 changes per hour; and

(7) Have the space between the doors monitored for cargo vapor leaks under § 154.1350.

(c) In addition to the requirements of paragraphs (a) and (b) of this section, no gas-safe space on a liquefied flammable gas carrier may have an air lock unless the space:

(1) Is mechanically ventilated to make the pressure in the space greater than that in the air lock; and

(2) Has a means of automatically de-energizing all electrical equipment that is not explosion-proof in the space when the pressure in the space falls to or below the pressure in the air lock.

## § 154.350 Bilge and ballast systems in the cargo area.

(a) Hold, interbarrier, and insulation spaces must have a means of sounding the space or other means of detecting liquid leakage specially approved by the Commandant (CG-ENG).

(b) Each hold and insulation space must have a bilge drainage system.

(c) Interbarrier spaces must have an eductor or pump for removing liquid cargo and returning it to the cargo tanks or to an emergency jettisoning system meeting § 154.356.

(d) Spaces in the cargo containment portion of the vessel, except ballast spaces and gas-safe spaces, must not connect to pumps in the main machinery space.

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 82-063b, 48 FR 4782, Feb. 3, 1983]

## 46 CFR Ch. I (10-1-13 Edition)

### § 154.355 Bow and stern loading piping.

(a) Bow and stern loading piping must:

(1) Meet § 154.310;

(2) Be installed in an area away from the accommodation, service, or control space on type IG hulls;

(3) Be clearly marked;

(4) Be segregated from the cargo piping by a removable spool piece in the cargo area or by at least two shut-off valves in the cargo area that have means of locking to meet § 154.1870(a);

(5) Have a means for checking for cargo vapor between the two valves under paragraph (a)(4) of this section;

(6) Have fixed inert gas purging lines; and

(7) Have fixed vent lines for purging with inert gas to meet § 154.1870(b).

(b) Entrances, forced or natural ventilation intakes, exhausts, and other openings to accommodation, service, or control spaces that face the bow or stern loading area must meet § 154.330.

### § 154.356 Cargo emergency jettisoning piping.

Emergency jettisoning piping must:

(a) Meet § 154.355(a);

(b) Be designed to allow cargo discharge without the outer hull steel temperature falling below the minimum temperatures under §§ 154.170 and 154.172; and

(c) Be specially approved by the Commandant (CG-ENG).

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 82-063b, 48 FR 4782, Feb. 3, 1983]

## CARGO CONTAINMENT SYSTEMS

### § 154.401 Definitions.

As used in §§ 154.440 and 154.447:

“ $\sigma_y$ ” means the minimum yield strength of the tank material, including weld metal, at room temperature.

“ $\sigma_B$ ” means minimum tensile strength of the tank material, including weld metals, at room temperature.

### § 154.405 Design vapor pressure ( $P_o$ ) of a cargo tank.

(a) The design vapor pressure ( $P_o$ ) of a cargo tank must be equal to or greater than the MARVS.