tank that meets \$3.05-2(d) and 38.05-4(g) of this chapter. (See also \$153.256(b)).

[CGD 78-128, 47 FR 21208, May 17, 1982]

#### §153.254 Cargo tank access.

- (a) A cargo tank must have at least one covered manhole opening into the vapor space described in §153.354.
- (b) An access through a vertical cargo tank surface must be at least 60 cm by 80 cm (approx.  $23.6 \times 31.5$  in.) and no more than 60 cm above a foothold grating, or surface on both sides of the access way.
- (c) An access through a horizontal cargo tank surface must be at least 60 cm by 60 cm (approx.  $23.6 \times 23.6 \text{ in.}$ ).
- (d) An access trunk must be no less than 76 cm (approx. 29.9 in.) in diameter

# § 153.256 Trunks, domes, and openings of cargo tanks.

- (a) The hatch of a cargo tank must:
- (1) Be at the highest point of the tank; and
- (2) Open on or above the weatherdeck.
- (b) To be endorsed to carry a cargo requiring an independent cargo tank, a tank must have:
- (1) A trunk or dome at the uppermost part of the tank, extending above the weatherdeck:
- (2) Its hatch at the top of the trunk or dome; and
- (3) No openings below the weatherdeck.

## §153.266 Tank linings.

A tank lining must be:

- (a) At least as elastic as the tank material; and
- (b) Applied or attached to the tank as recommended by the lining manufacturer.

PIPING SYSTEMS AND CARGO HANDLING EQUIPMENT

## §153.280 Piping system design.

- (a) Each cargo piping system must meet the standards of Part 56 and §§38.10–1(b), 38.10–1(e), and 38.10–10(a) of this chapter.
- (b) Piping carrying cargo or cargo residue may not enter any machinery space except a cargo pumproom.

#### §153.281 Piping to independent tanks.

Piping for an independent cargo tank must penetrate the tank only through that part of the tank or dome extending above the weatherdeck.

[CGD 78–128, 47 FR 21208, May 17, 1982]

## §153.282 Cargo filling lines.

The discharge point of a cargo tank filling line must be no higher above the bottom of the cargo tank or sump than 10 cm (approx. 4 in.) or the radius of the filling line, whichever is greater.

#### § 153.283 Valving for cargo piping.

- (a) Except as described in this section, a cargo line must have a deck operable, manual stop valve:
- (1) In each tank which the line serves: and
- (2) At each cargo hose connection point.
- (b) The valve required by paragraph (a)(1) of this section may be in a cargo pumproom at the pumproom bulkhead if the cargo tank the cargo line serves is adjacent to the pumproom.
- (c) The valve required by paragraph (a)(1) of this section may be on the weatherdeck if:
- (1) The weatherdeck is the top of the tank;
- (2) The line goes through the weatherdeck into the tank; and
- (3) The valve is at the point where the line penetrates the weatherdeck.
- (d) The valve required by paragraph (a)(1) of this section may be outside the tank if:
- (1) The tank is an independent tank; and
- (2) The valve is at the point where the line penetrates the tank.
- (e) The discharge line of an intank cargo pump need not have the valve required by paragraph (a)(1) of this section.
- (f) If the cargo exerts a gravity head pressure on a valve required by this section, the valve must be a positive shutoff valve that meets §56.50-60(d) of this chapter.

[CGD 73-96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78-128, 47 FR 21208, May 17, 1997]