AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

(1) At least 3.2 mm (⅛ in.) thick;
(2) Separated from the tank dome, except at the support points; and
(3) Thermally isolated from the dome.

[CGD 74–289, 44 FR 26009, May 3, 1979, as amended by CGD 77–069, 52 FR 31630, Aug. 21, 1987]

SHIP SURVIVAL CAPABILITY AND CARGO TANK LOCATION

§ 154.200 Stability requirements: General.

Each vessel must meet the applicable requirements in subchapter S of this chapter.

[CGD 79–023, 48 FR 51009, Nov. 4, 1983]

§ 154.235 Cargo tank location.

(a) For type IG hulls, cargo tanks must be located inboard of:
(1) The transverse extent of damage for collision penetration specified in Table 172.180 of this chapter;
(2) The vertical extent of damage for grounding penetration specified in Table 172.180 of this chapter; and
(3) 30 inches (760 mm) from the shell plating.
(b) For type IIG, IIPG, and IIIG hulls, cargo tanks must be located inboard of:
(1) The vertical extent of damage for grounding penetration specified in Table 172.180 of this chapter; and
(2) 30 inches (760 mm) from the shell plating.
(c) In vessels having membrane and semi-membrane tanks, the vertical and transverse extents of damage must be measured to the inner hull.
(d) For type IIG, IIPG, and IIIG hulls, cargo tank suction wells may penetrate into the area of bottom damage specified as the vertical extent of damage for grounding penetration in Table 172.180 of this chapter if the penetration is the lesser of 25% of the double bottom height or 13.8 in. (350 mm).

[CGD 74–289, 44 FR 26009, May 3, 1979, as amended by CGD 79–023, 48 FR 51010, Nov. 4, 1983]

SHIP ARRANGEMENTS

§ 154.300 Segregation of hold spaces from other spaces.

Hold spaces must be segregated from machinery and boiler spaces, accommodation, service and control spaces, chain lockers, potable, domestic and feed water tanks, store rooms and spaces immediately below or outboard of hold spaces by a:
(a) Cofferdam, fuel oil tank, or single gastight A–60 Class Division of all welded construction in a cargo containment system not required by this part to have a secondary barrier;
(b) Cofferdam or fuel oil tank in a cargo containment system required by this part to have a secondary barrier; or
(c) If there are no sources of ignition or fire hazards in the adjoining space, single gastight A–O Class Division of all welded construction.

§ 154.305 Segregation of hold spaces from the sea.

In vessels having cargo containment systems required by this part to have a secondary barrier, hold spaces must be segregated from the sea by:
(a) A double bottom if the cargo tanks meet this part for design temperatures colder than −10°C (14°F); and
(b) Wing tanks if the cargo tanks meet this part for design temperatures colder than −55°C (−67°F).

§ 154.310 Cargo piping systems.

Cargo liquid or vapor piping must:
(a) Be separated from other piping systems, except where an interconnection to inert gas or purge piping is required by § 154.901(a);
(b) Not enter or pass through any accommodation, service, or control space;
(c) Except as allowed under § 154.703, not enter or pass through a machinery space other than a cargo pump or compressor room;
(d) Be in the cargo area except:
(1) As allowed under § 154.703;
(2) Bow and stern loading piping; and
(3) Emergency jettisoning piping.
(e) Be above the weather deck except:
(1) As allowed under § 154.703;
(2) Pipes in a trunk traversing void spaces above a cargo containment system; and
(3) Pipes for draining, venting, or purging interbarrier and hold spaces;
(f) Connect into the cargo containment system above the weather deck except:

(1) Pipes in a trunk traversing void spaces above a cargo containment system; and

(2) Pipes for draining, venting, or purging interbarrier and hold spaces.

(g) Be inboard of the transverse cargo tank location required by §154.235, except for athwartship shore connection manifolds not subject to internal pressure at sea.

§ 154.315 Cargo pump and cargo compressor rooms.

(a) Cargo pump rooms and cargo compressor rooms must be above the weather deck and must be within the cargo area.

(b) Where pumps and compressors are driven by a prime mover in an adjacent gas safe space:

(1) The bulkhead or deck must be gastight; and

(2) The shafting passing through the bulkhead or deck must be sealed by a fixed oil reservoir gland seal, a pressure grease seal, or another type of positive pressure seal specially approved by the Commandant (G–MSO).

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

§ 154.320 Cargo control stations.

(a) Cargo control stations must be above the weather deck.

(b) If a cargo control station is in accommodation, service, or control spaces or has access to such a space, the station must:

(1) Be a gas safe space;

(2) Have an access to the space that meets §154.330; and

(3) Have indirect reading instrumentation, except for gas detectors.

(c) Cargo control stations, including a room or area, must contain all alarms, indicators, and remote controls associated with each cargo tank that the station controls.

§ 154.325 Accommodation, service, and control spaces.

(a) Accommodation, service, and control spaces must be outside the cargo area.

(b) If a hold space having a cargo containment system, required by this part to have a secondary barrier, is separated from any accommodation, service, or control space by a cruciform joint, there must be a cofferdam providing at least 760 mm (30 inches) by 760 mm (30 inches) clearance on one side of the cruciform joint.

§ 154.330 Openings to accommodation, service, or control spaces.

(a) Entrances, forced or natural ventilation intakes and exhausts, and other openings to accommodation, service, or control spaces, except as allowed in paragraph (c) of this section, must be:

(1) At least L/25 or 3.05m (10 ft) from the athwartship bulkhead facing the cargo area, whichever is farther, except that the distance need not exceed 5m (16.4 ft); and

(2) On a house athwartship bulkhead not facing the cargo area or on the outboard side of the house.

(b) Each port light, located on the athwartship bulkhead of a house facing the cargo area or the house sides within the distance specified in paragraph (a)(1) of this section, must be a fixed type.

(c) Wheelhouse doors and windows that are not fixed may be within the distance specified in paragraph (a)(1) of this section from the athwartship bulkhead of a house facing the cargo area, if they have gaskets and pass a tightness test with a fire hose at not less than 207 kPa gauge (30 psig).

(d) Port lights in the hull plating below the uppermost continuous deck and in the first tier of the superstructure must be a fixed type.

(e) Air intakes and openings into accommodation, service, and control spaces must have metal closures that pass a tightness test with a fire hose at not less than 207 kPa gauge (30 psig).

(f) On liquefied toxic gas vessels, the closures required in paragraph (e) of this section must be capable of being closed from inside the space.

§ 154.340 Access to tanks and spaces in the cargo area.

(a) Each cargo tank must have a manhole from the weather deck, the clear opening of which is at least 600 mm by 600 mm (23.6 in. by 23.6 in.).

(b) Each access into and through a void space or other gas-dangerous space in the cargo area, except spaces