§ 154.1405 Respiratory protection.

When Table 4 references this section, a vessel carrying the listed cargo must have:

(a) Respiratory protection equipment for each person on board that protects the person from the cargo vapor for at least 5 minutes; and

(b) Two additional sets of respiratory protection equipment that:

(1) Are stowed in the wheelhouse; and

(2) Protects the wearer from the cargo vapor for at least 5 minutes.

§ 154.1410 Decontamination shower.

When Table 4 references this section, a vessel carrying the listed cargo must have a decontamination shower and an eye wash that:

(a) Are on the weatherdeck; and

(b) Have their location marked EMERGENCY SHOWER in letters:

(1) 7.6 cm (3 in.) high; and

(2) 5.1 cm (2 in.) wide.

§ 154.1415 Air compressor.

Each vessel must have an air compressor to recharge the bottles for the air-breathing apparatus.

§ 154.1420 Stretchers and equipment.

Each vessel must have:

(a) Two stretchers or wire baskets; and

(b) Equipment for lifting an injured person from a cargo tank, hold, or void space.

§ 154.1430 Equipment locker.

One of each item of equipment under §§154.1400 and 154.1420 must be stowed in a marked locker.
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(a) On the open deck in or adjacent to the cargo area; or
(b) In the accommodation house, near to a door that opens onto the main deck.

§ 154.1435 Medical first aid guide.

Each vessel must have a copy of the *IMO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods*, printed by IMO, London, U.K.

§ 154.1440 Antidotes.

Each vessel must have the antidotes prescribed in the *IMO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods*, printed by IMO, London, U.K. for the cargoes being carried.

Subpart D—Special Design and Operating Requirements

§ 154.1700 Purpose.

This subpart prescribes design and operating requirements that are unique for certain cargoes regulated by this part.

§ 154.1702 Materials of construction.

When Table 4 references one of the following paragraphs in this section, the materials in the referenced paragraph must not be in components that contact the cargo liquid or vapor:
(a) Aluminum and aluminum bearing alloys.
(b) Copper and copper bearing alloys.
(c) Zinc or galvanized steel.
(d) Magnesium.
(e) Mercury.
(f) Acetylide forming materials, such as copper, silver, and mercury.

§ 154.1705 Independent tank type C.

The following cargoes must be carried in an independent tank type C that meets §154.701(a):
(a) Ethylene oxide.
(b) Methyl bromide.
(c) Sulfur dioxide.

§ 154.1710 Exclusion of air from cargo tank vapor spaces.

When a vessel is carrying acetaldehyde, butadiene, ethylene oxide, or vinyl chloride, the master shall ensure that air is:
(a) Purged from the cargo tanks and associated piping before the cargo is loaded; and
(b) Excluded after the cargo is loaded by maintaining a positive pressure of at least 13.8 kPa gauge (2 psig) by:
(1) Introducing a gas that:
   (i) Is not reactive;
   (ii) Is not flammable; and
   (iii) Does not contain more than 0.2% oxygen by volume; or
(2) Controlling the cargo temperature.

§ 154.1715 Moisture control.

When a vessel is carrying sulfur dioxide, the master shall ensure that:
(a) A cargo tank is dry before it is loaded with sulfur dioxide; and
(b) Air or inert gas admitted into a cargo tank carrying sulfur dioxide during discharging or tank breathing has a moisture content equal to or less than the moisture content of air with a dewpoint of −45 °C (−49 °F) at atmospheric pressure.

§ 154.1720 Indirect refrigeration.

A refrigeration system that is used to cool acetaldehyde, ethylene oxide, or methyl bromide, must be an indirect refrigeration system that does not use vapor compression.

§ 154.1725 Ethylene oxide.

(a) A vessel carrying ethylene oxide must:
   (1) Have cargo piping, vent piping, and refrigeration equipment that have no connections to other systems;
   (2) Have valves, flanges, fittings, and accessory equipment made of steel, stainless steel, except types 416 and 442, or other material specially approved by the Commandant (CG–OES);
   (3) Have valve disk faces, and other wearing parts of valves made of stainless steel containing not less than 11% chromium;
   (4) Have gaskets constructed of spirally wound stainless steel with teflon or other material specially approved by the Commandant (CG–OES);
   (5) Not have asbestos, rubber, or cast iron components in the cargo containment system and piping;
   (6) Not have threaded joints in cargo piping;