§ 153.545 Special requirements for liquid sulfur.

(a) A containment system carrying liquid sulfur must have:

1. A cargo tank ventilation system that:
   i. Maintains the H₂S vapor concentration below 1.85 percent by volume; and
   ii. Prevents sulfur buildup within itself; and

2. A forces ventilation system meeting the requirements that apply to a cargo handling space ventilation system in § 153.312.

(i) Coffer dams, cargo tanks, double bottom spaces, void spaces and other enclosed spaces adjacent to an integral cargo tank must have an inert gas system meeting the requirements that apply to the inert gas system of a containment system in § 153.500.

(ii) An inert gas system meeting the requirements that apply to the inert gas system of a containment system in § 153.500.

(iii) A cargo discharge piping system must have a remotely actuated quick closing shutoff valve that meets § 153.284 at the cargo transfer hose connection.

(iv) Cargo hose must:
   i. Have the specific approval of the Commandant (CG–522) for use in alkylene oxide transfer; and
   ii. Be marked “For Alkylene Oxide Transfer Only”.

(v) All exposed parts of the cargo containment system above or on the deck, such as tank domes, cargo piping, and loading manifolds, must be covered by a water spray system that:
   i. Operates automatically in a fire involving the cargo containment system;
   ii. Has at least two remote manual actuators, one in each emergency shutdown station required by § 153.296; and
   iii. Covers the area of application with a uniform spray of 0.175 l/m² sec (0.0043 gal/ft² sec).

§ 153.554 Special requirements for acids.

When Table 1 refers to this section:

(a) Each containment system loading and discharge connection must have a spray shield;

(b) Each cargo containment system must be separated from bunkers by double walls, such as a cofferdam and piping tunnels; and

(c) Each vessel must have on board a means to determine whether cargo has leaked into the spaces adjacent to a cargo containment system.

§ 153.555 Special requirements for inorganic acids.

When Table 1 refers to this section, a tankship’s shell plating must not be a part of the cargo tank.

§ 153.556 Special requirements for sulfuric acid and oleum.

(a) Except as prescribed in paragraphs (b) and (c) of this section, containment systems carrying sulfuric acid, oleum, or contaminated sulfuric acid are approved by the Commandant (CG–522) on a case by case basis.

(b) A containment system carrying sulfuric acid may be:

1. Made of unlined steel if the cargo composition is between 70 and 80 or between 90 and 100 percent acid by weight;

2. Lined with lead if the cargo composition does not exceed 96 percent acid by weight; or