§ 153.440 Cargo temperature sensors.

(a) Except as prescribed in paragraph (c) of this section, when Table 1 refers to this section, the containment system must meet the following requirements:
   (1) A heated or refrigerated cargo tank must have a remote reading thermometer sensing the temperature of the cargo at the bottom of the tank.
   (2) A refrigerated tank must have a remote reading second thermometer near the top of the tank and below the maximum liquid level allowed by §153.981.
   (3) Unless waived under § 153.491(a), a cargo tank endorsed to carry a Category A, B, or C NLS cargo must have a thermometer whose temperature reading is no greater than the temperature of the cargo at a level above the tank bottom at least one-eighth but no more than one-half the height of the tank if the cargo is—
      (i) A Category A NLS or a Category B NLS having a viscosity of at least 25 mPa.s at 20 °C;
      (ii) A Category C NLS having a viscosity of at least 60 mPa.s at 20 °C; or
      (iii) A Category A, B, or C NLS that has a melting point greater than 0 °C.
   (b) A readout for each remote thermometer required by this section must be at the point where cargo transfer is controlled.
   (c) A portable thermometer may be substituted for the equipment required in paragraphs (a) and (b) of this section if—
      (1) Table 1 allows open gauging with the cargo; or
      (2) Table 1 allows restricted gauging with the cargo, and the portable thermometer is designed to be used through the containment system’s restricted gauging system.

§ 153.460 Fire protection systems.

Each self-propelled ship and each manned non-self-propelled ship must meet the following:

(a) With the exception of the vent riser, each part of a cargo containment system exposed on the weatherdeck must be covered by the fire protection system listed beside the cargo in Table 1 and described in the footnotes to Table 1.

(b) The Commandant (CG–522) approves the substitution of a dry chemical (D) type fire protection system for an A or B type on a case by case basis.

(c) A fire protection system required by this part must meet part 34 of this chapter or be specifically approved by the Commandant (CG–522).

§ 153.461 Electrical bonding of independent tanks.

An independent metallic cargo tank that carries a flammable or combustible cargo must be electrically bonded to the tankship’s hull.

§ 153.462 Static discharges from inert gas systems.

An inert gas system on a tank that carries a flammable or combustible cargo must not create static arcing as the inert gas is injected into the tank.

§ 153.463 Vent system discharges.

The discharge of a venting system must be at least 10 m (approx. 32.8 ft) from an ignition source if:

(a) The cargo tank is endorsed to carry a flammable or combustible cargo; and

(b) Table 1 requires the cargo to have a PV venting system.