

be supervised in person by a deck officer.

(5) Both the equipment over the side and the point of access must be adequately lit during night operations.

(6) If a pilot hoist is used, a pilot ladder must be kept on deck adjacent to the hoist and available for immediate use.

[CGD 79-032, 49 FR 25455, June 21, 1984]

### Subpart 97.95—Person in Charge of Transfer of Liquid Cargo in Bulk

SOURCE: CGD 79-116, 60 FR 17157, Apr. 4, 1995, unless otherwise noted.

#### § 97.95-1 General.

A qualified person in charge of a transfer of liquid cargo in bulk shall be designated in accordance with subpart C of 33 CFR part 155.

[CGD 79-116, 60 FR 17157, Apr. 4, 1995]

## PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND OTHER PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

### Subpart 98.01—General

Sec.

- 98.01-1 Applicability.
- 98.01-3 Incorporation by reference.

### Subpart 98.25—Anhydrous Ammonia in Bulk

- 98.25-1 Applicability.
- 98.25-5 How anhydrous ammonia may be carried.
- 98.25-10 Design and construction of cargo tanks.
- 98.25-15 Markings.
- 98.25-20 Installation of cargo tanks.
- 98.25-30 Lagging.
- 98.25-35 Refrigerated systems.
- 98.25-40 Valves, fittings, and accessories.
- 98.25-45 Liquid level gaging device.
- 98.25-50 Filling and discharge pipes.
- 98.25-55 Cargo piping.
- 98.25-60 Safety relief valves.
- 98.25-65 Filling density.
- 98.25-70 Venting.
- 98.25-75 Ventilation.
- 98.25-80 Cargo hose.
- 98.25-85 Electrical bonding.
- 98.25-90 Special operating requirements.
- 98.25-95 Tests and inspections.
- 98.25-97 Nondestructive testing.

### Subpart 98.30—Portable Tanks and Intermediate Bulk Containers

- 98.30-1 Applicability.
- 98.30-2 Incorporation by Reference.
- 98.30-3 Definitions.
- 98.30-4 Vessels carrying MPTs.
- 98.30-5 Vessels carrying portable tanks other than MPTs.
- 98.30-6 Vessels carrying IBCs.
- 98.30-7 Materials authorized for transfer to and from a portable tank.
- 98.30-8 Materials authorized for transfer to and from an IBC.
- 98.30-9 Lifting a portable tank or IBC.
- 98.30-10 Smoking.
- 98.30-11 Gaskets and lining.
- 98.30-12 Stowage of portable tanks and IBCs.
- 98.30-13 Pipe connections, and filling and discharge openings.
- 98.30-14 Cargo pumps.
- 98.30-15 Ground connection.
- 98.30-16 Requirements for ships carrying NLSs in portable tanks and IBCs.
- 98.30-17 Leakage containment.
- 98.30-18 Qualifications of person in charge.
- 98.30-19 Supervision by person in charge.
- 98.30-21 Inspection prior to transfer.
- 98.30-23 Requirements for transfer; general.
- 98.30-25 Requirements for transfer; cargo handling system.
- 98.30-27 Connections.
- 98.30-29 Piping incompatible products.
- 98.30-31 Conditions for pumping.
- 98.30-33 Warning signals.
- 98.30-35 Warning sign at gangway.
- 98.30-37 Firefighting requirements.
- 98.30-39 Alternate fire extinguishing system.

### Subpart 98.31—Control of Pollution From NLS Cargoes on Oceangoing Offshore Supply Vessels

- 98.31-5 Applicability.
- 98.31-10 Certificate of inspection and NLS certificate endorsements.
- 98.31-15 Operating requirements.

### Subpart 98.33—Portable Tanks and IBCs for Certain Grade E Combustible Liquids and Other Regulated Materials

- 98.33-1 Applicability.
- 98.33-3 Cargoes authorized.
- 98.33-5 Portable tanks and IBCs authorized.
- 98.33-7 Pipe and hose connections.
- 98.33-9 Stowage.
- 98.33-11 Smoking.
- 98.33-13 Cargo-handling systems.
- 98.33-15 Transfers.

AUTHORITY: 33 U.S.C. 1903; 46 U.S.C. 3306, 3307, 3703; 49 U.S.C. App. 1804; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

**§ 98.01-1**

SOURCE: CGFR 65-50, 30 FR 17022, Dec. 30, 1965, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 98 appear by USCG-2009-0702, 74 FR 49232, Sept. 25, 2009.

**Subpart 98.01—General**

**§ 98.01-1 Applicability.**

(a) The provisions of this part shall apply to all self-propelled cargo vessels which carry in bulk any of the dangerous cargoes specifically noted in this part.

(b) [Reserved]

(c) The regulations for barges carrying any of the bulk chemical cargoes listed in subparts 98.01 through 98.25 are found in subchapter O of this chapter.

(d) [Reserved]

(e) Manned barges carrying any of the cargoes listed in Table 151.05 of this chapter will be considered individually by the Commandant and may be required to meet the applicable requirements of subchapter O of this chapter, as well as the requirements of this subchapter.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70-10, 35 FR 3711, Feb. 25, 1970; CGD 84-043, 55 FR 37411, Sept. 11, 1990; 59 FR 17011, Apr. 11, 1994]

**§ 98.01-3 Incorporation by reference.**

(a) Certain standards and specifications are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the ones listed in paragraph (b) of this section, notice of change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is at the National Archives and Records Administration (NARA), and is available from the sources indicated in paragraph (b) of this section. For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The standards and specifications approved for incorporation by reference in this part and the sections affected, are:

**46 CFR Ch. I (10-1-23 Edition)**

*American Society for Nondestructive Testing (ASNT)*

4153 Arlingate Road, Caller # 28518, Columbus, OH, 43228-0518

ASNT “Recommended Practice No. SNT-TC-1A (1988), Personnel Qualification and Certification in Non-destructive Testing” .....98.25-97(c)(2)

*American Society of Mechanical Engineers (ASME) International*

Three Park Avenue, New York, N.Y. 10016-5990

ASME Boiler and Pressure Vessel Code, section V, Nondestructive Examination (1986) .....98.25-97(a)(1)

[CGD 85-061, 54 FR 50965, Dec. 11, 1989, as amended by USCG-1999-6216, 64 FR 53226, Oct. 1, 1999]

**Subpart 98.25—Anhydrous Ammonia in Bulk**

**§ 98.25-1 Applicability.**

(a) The regulations in this subpart apply to each self-propelled vessel that has anhydrous ammonia on board as a cargo, cargo residue, or vapor and that is not regulated under part 154 of this chapter.

(b) Any self-propelled vessel to which this subpart applies shall be inspected and certificated under this subchapter and subchapter D of this chapter.

[CGD 74-289, 44 FR 26008, May 3, 1979]

**§ 98.25-5 How anhydrous ammonia may be carried.**

(a) Anhydrous ammonia shall be carried in unfired pressure vessel type tanks independent of the structure as detailed in this part, except as otherwise provided in paragraph (b) of this section.

(b) When anhydrous ammonia is to be transported at its boiling temperature at or near atmospheric pressure, the Commandant may permit the use of alternate methods of storage if it is shown to his satisfaction that a degree of safety is obtained consistent with the minimum requirements of this subpart.

**§ 98.25-10 Design and construction of cargo tanks.**

(a) The cargo tanks shall meet the requirements for Class I, I-L, II, or II-L welded pressure vessels and shall be

fabricated, inspected, and tested in accordance with the applicable requirements of part 54 of subchapter F (Marine Engineering) of this chapter.

(b) Unlagged cargo tanks subject to atmospheric temperatures shall be designed for a pressure of not less than 250 pounds per square inch gage.

(c) Where unrefrigerated cargo tanks are lagged as required by §§ 98.25-30 and 98.25-60, the tanks shall be designed for a pressure of not less than 215 pounds per square inch gage.

(d) Refrigerated cargo tanks, in which the temperature of the liquid ammonia is maintained below the normal atmospheric temperatures, shall be designed for a pressure of not less than the vapor pressure corresponding to the temperature of the liquid at which the system is to be maintained, plus 25 pounds per square inch gage.

(e) Each tank shall be provided with not less than a 15" × 18" diameter manhole, fitted with a cover located above the maximum liquid level and as close as possible to the top of the tank. Where access trunks are fitted to tanks, the diameter of the trunks shall be not less than 30 inches.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68-82, 33 FR 18902, Dec. 18, 1968]

#### § 98.25-15 Markings.

(a) Cargo tanks shall be marked in accordance with the requirements of § 54.10-20 of subchapter F (Marine Engineering) of this chapter.

(b) In addition to the markings required to be stamped on the tank, the legend, "Anhydrous Ammonia" shall be conspicuously and legibly marked upon the dome or upper portion of the tank in letters at least 4 inches high.

(c) All tank inlet and outlet connections, except safety relief valves, liquid level gaging devices and pressure gages shall be labeled to designate whether they terminate in the vapor or liquid space. Labels of noncorrosive material may be attached to valves.

(d) All tank markings shall be permanently and legibly stamped in a readily visible position. If the tanks are lagged, the markings attached to the tank proper shall be duplicated on a

corrosion resistant plate secured to the outside jacket of the lagging.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68-82, 33 FR 18902, Dec. 18, 1968]

#### § 98.25-20 Installation of cargo tanks.

(a) Independent tanks shall be arranged in the vessel so as to provide a minimum clearance of not less than 24 inches from the vessel's side and not less than 15 inches from the vessel's bottom. Where more than one tank is installed in a vessel, the distance between such tanks shall be not less than 15 inches, unless otherwise approved by the Commandant. Alternate provisions may be made for moving such tanks to provide for adequate inspection and maintenance of the vessel's structure and the tanks.

(b) The design shall show the manner in which the tanks are to be installed, supported, and secured in the vessel and shall be approved prior to installation. Tanks shall be supported in steel saddles and securely anchored in place. If the tanks are required to be stress-relieved no appendages shall be welded to the tanks after they have been stress-relieved unless authorized by the Commandant.

(c) Tanks may be located in dry cargo holds or in liquid cargo tanks or may be installed "on deck" or "under deck" with the tank protruding above deck. On installations where a portion of the tank extends above the weather deck, provision shall be made to maintain the weathertightness of the deck, except that vessels operating on protected inland waters may have tanks located in the holds of hopper type barges without the watertightness of the deck being maintained. All tanks shall be installed with the manhole opening and fittings located above the weather deck.

(d) The anhydrous ammonia tanks may be installed in the bulk liquid cargo tanks provided the liquid surrounding the enclosed anhydrous ammonia tanks complies with the following chemical and physical properties:

- (1) Boiling point above 125 °F. at atmospheric pressure.
- (2) Inert to ammonia at 100 °F. at atmospheric pressure.

**§ 98.25-30**

(3) Noncorrosive in the liquid and vapor phase to the ammonia tanks and piping.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70-10, 35 FR 3711, Feb. 25, 1970]

**§ 98.25-30 Lagging.**

(a) Lagged tanks shall be covered with an incombustible insulation material of a thickness to provide a thermal conductance of not more than 0.075 B.t.u. per square foot per degree F. differential in temperature per hour. The insulating material shall be of an approved type complying with the requirements of subpart 164.009 of subchapter Q (Specifications) of this chapter, and shall be given a vapor proof coating with fire retardant material acceptable to the Commandant. Tanks exposed to the weather shall have the insulation and vapor proof coating covered with a removable sheet metal jacket of not less than 0.083 inch thickness and flashed around all openings so as to be weather tight. Materials other than sheet metal may be used to cover the insulation and vapor proof coating when specifically authorized by the Commandant.

(b) Where unlagged tanks are installed in insulated holds or insulated 'tween deck spaces, such tanks shall be considered lagged provided the thermal conductance of the insulation is not less than that required by paragraph (a) of this section.

**§ 98.25-35 Refrigerated systems.**

(a) Where refrigerated systems are installed to maintain the temperature of the liquid below atmospheric, at least two complete refrigeration plants automatically regulated by pressure variations within the tanks shall be provided, each to be complete with the necessary auxiliaries for proper operation. The capacity of each refrigeration compressor shall be sufficient to maintain the vapor pressure in the tanks during the peak atmospheric temperature conditions below the pressure for which the tanks are designed.

(b) An alternate arrangement may consist of three compressors, any two of which shall be capable of maintaining the vapor pressure in the tanks during peak atmospheric temperature

**46 CFR Ch. I (10-1-23 Edition)**

conditions below the pressure for which the tanks are designed, the third compressor acting as a stand-by unit.

(c) Refrigerated tanks shall be insulated in conformance with the requirements of § 98.25-30.

**§ 98.25-40 Valves, fittings, and accessories.**

(a) All valves, flanges, fittings and accessory equipment shall be of a type suitable for use with anhydrous ammonia and shall be made of steel, or malleable or nodular iron meeting the requirements of § 56.60-1 of subchapter F (Marine Engineering) of this chapter. Valves shall be fitted with noncorrosive material suitable for ammonia service. Valves, flanges, and pipe fittings shall be of the square or round tongue and groove type or raised-face, United States of America Standard 300-pound standard minimum, fitted with suitable soft gasket material. Welded fittings shall be used wherever possible and the number of pipe joints shall be held to a minimum. Screwed joints are not permitted for pipe diameters exceeding 2 inches. Nonferrous materials, such as copper, copper alloys and aluminum alloys, shall not be used in the construction of valves, fittings or accessory equipment. Brazed joints are prohibited.

(b) Each tank shall be provided with the necessary fill and discharge liquid and vapor shut-off valves, safety relief valves, liquid level gaging devices, thermometer well and pressure gage, and shall be provided with suitable access for convenient operation. Connections to tanks installed below the weather deck shall be made to a trunk or dome extending above the weather deck. Connections to the tanks shall be protected against mechanical damage and tampering. Other openings in the tanks, except as specifically permitted by this part, are prohibited.

(c) All connections to the tanks, except safety devices and liquid level gaging devices, shall have manually operated shut-off valves located as close to the tank as possible.

(d) Excess flow valves where required by this section shall close automatically at the rated flow of vapor or liquid as specified by the manufacturer. The piping, including valves, fittings

and appurtenances, protected by an excess flow valve, shall have a greater capacity than the rated flow of the excess flow valve.

(e) Liquid level gaging devices which are so constructed that outward flow of tank contents shall not exceed that passed by a No. 54 drill size opening, need not be equipped with excess flow valves.

(f) Pressure gage connections need not be equipped with excess flow valves if the openings are not larger than No. 54 drill size.

(g) Excess flow valves may be designed with a bypass, not to exceed a No. 60 drill size opening, to allow equalization of pressure.

(h) Prior to disconnecting shore lines, the pressure in the liquid and vapor lines shall be relieved through suitable valves installed at the loading header.

(i) Relief valves shall be fitted in liquid lines which may be subject to excessive pressure caused by liquid full condition, and the escape from the relief valves shall be piped to the venting system.

(j) The pressure gage shall be located at the highest practical point. The thermometer well shall terminate in the liquid space and be attached to the shell by welding with the end of the fitting being provided with a gas-tight screwed plug or bolted cover.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68-82, 33 FR 18902, Dec. 18, 1968; CGFR 70-10, 35 FR 3712, Feb. 25, 1970]

#### § 98.25-45 Liquid level gaging device.

(a) Each tank shall be fitted with a liquid level gaging device of suitable design to indicate the maximum level to which the tank may be filled with liquid at temperatures between 20 °F. and 130 °F.

(b) Liquid level gaging devices shall be of the following types: magnetic, rotary tube, slip tube, fixed tube, automatic float, or other types acceptable to the Commandant.

(c) Gaging devices that require bleeding of the product to the atmosphere, such as rotary tube, fixed tube, and slip tube, shall be so designed that the bleed valve maximum opening is not larger than a No. 54 drill size, unless provided with an excess flow valve.

(d) Gaging devices shall have a design pressure of at least 250 pounds per square inch.

(e) Gage glasses of the columnar type are prohibited.

#### § 98.25-50 Filling and discharge pipes.

(a) Filling connections shall be provided with one of the following:

(1) Combination back pressure check valve and excess flow valve;

(2) One double or two single back pressure check valves; or

(3) A positive shut-off valve in conjunction with either an internal back pressure check valve or an internal excess flow valve.

(b) All other liquid and vapor connections to tanks, except filling connections, safety relief valves, and liquid level gaging devices and pressure gages described in § 98.25-40(e) and (f) shall be equipped with automatic excess flow valves; or in lieu thereof, may be fitted with quick closing internal stop valves, which, except during filling and discharge operations, shall remain closed. The control mechanism for such valves shall be provided with a secondary remote control of a type acceptable to the Commandant.

(c) The excess flow, internal stop or back pressure check valves shall be located on the inside of the tank or outside where the piping enters the tank. In the latter case, installation shall be made in such a manner that any undue strain will not cause breakage between the tank and the excess flow or internal stop valve.

(d) Where the filling and discharge are made through a common nozzle at the tank, and the connection is fitted with a quick-closing internal stop valve as permitted in paragraph (b) of this section, the back pressure check valve or excess flow valve is not required, provided, however, a positive shut-off valve is installed in conjunction with the internal stop valve.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70-10, 35 FR 3712, Feb. 25, 1970]

#### § 98.25-55 Cargo piping.

(a) Piping shall be of seamless steel meeting the requirements of § 56.60-1 of subchapter F (Marine Engineering) of this chapter. The piping shall be of not

**§ 98.25-60**

less than Schedule 40 thickness. In case of piping on the discharge side of the liquid pumps or vapor compressors, the design shall be for a pressure of not less than the pump or compressor relief valve setting; or if the piping is not fitted with relief valves, the design pressure shall not be less than the total discharge head of the pump or compressor.

(b) Where necessary, provision shall be made for expansion and contraction of piping by means of seamless steel pipe expansion bends. Special consideration will be given for packless type expansion joints. Slip type expansion joints are prohibited. Piping shall be provided with adequate support to take the weight of the piping off the valves and fittings.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68-82, 33 FR 18902, Dec. 18, 1968]

**§ 98.25-60 Safety relief valves.**

(a) Each tank shall be fitted with two or more approved safety relief valves, designed, constructed, and flow-tested for capacity in conformance with subpart 162.018 of subchapter Q (Specifications) of this chapter.

(b) Each safety relief valve shall start to discharge at a pressure not in excess of the design pressure of the tank.

(c) Safety relief valves shall be attached to the tank near the highest point of the vapor space. Shutoff valves shall not be installed between the tanks and the safety relief valves, except manifolds for mounting multiple safety relief valves may be fitted with acceptable interlocking three-way valves so arranged at all times as to permit at any position of the three-way valve, an unrestricted flow of vapors through at least one port. When two safety relief valves are mounted in parallel on both the upper outlets of the three-way valve, the arrangement shall be such as to permit at least one safety relief valve to be operative at all times.

(d) Each safety valve shall be tested in the presence of a marine inspector at the site of installation before or after mounting prior to being placed in service. The tests shall prove that the safety relief valve will start to dis-

**46 CFR Ch. I (10-1-23 Edition)**

charge at a pressure not in excess of the maximum allowable pressure of the tank.

[CGFR 68-82, 33 FR 18902, Dec. 18, 1968]

**§ 98.25-65 Filling density.**

(a) The filling density, or the percent ratio of the liquefied gas that may be loaded in the tank to the weight of the water the tank will hold at 60 °F., shall not exceed 56 percent for unlagged tanks and 58 percent for lagged or refrigerated tanks.

**§ 98.25-70 Venting.**

(a) Except as provided in paragraph (b) of this section, each safety valve installed on a cargo tank shall be connected to a branch vent of a venting system which shall be constructed so that the discharge of gas will be directed vertically upward to a point at least 10 feet above the weather deck or the top of any tank or house located above the weather deck.

(b) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 98.25-70(b).

TABLE 98.25-70(b)—CAPACITY OF BRANCH VENTS OR VENT HEADERS

Number of cargo tanks	Percent of total valve discharge
1 or 2 .....	100
3 .....	90
4 .....	80
5 .....	70
6 or more .....	60

(c) In addition to the requirement specified in paragraph (b) of this section, the size of the branch vents or vent headers shall be such that the back pressure in relief valve discharge lines shall not be more than 10 percent of the safety relief valve setting.

(d) Return bends and restrictive pipe fittings are prohibited. Vents and headers shall be so installed as to prevent stresses on safety relief valve mountings.

(e) When vent discharge risers are installed, they shall be so located as to provide protection against physical damage and be fitted with loose raincaps.

(f) No shut-off valve shall be fitted in the venting system between the safety relief valve and the vent outlets. Suitable provision shall be made for draining the venting system if liquid can collect therein.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70-10, 35 FR 3712, Feb. 25, 1970; 35 FR 6431, Apr. 22, 1970]

#### § 98.25-75 Ventilation.

(a) All enclosed spaces containing cargo tanks fitted with bottom outlet connections shall be provided with mechanical ventilation of sufficient capacity to assure a change of air every 3 minutes. Where cargo tanks are fitted with top outlet connections, the enclosed spaces containing such tanks shall be fitted with efficient natural or mechanical ventilation.

(b) Enclosed compartments in which machinery such as cargo pumps or vapor compressors are located shall be adequately ventilated.

#### § 98.25-80 Cargo hose.

(a) Cargo hose fabricated of seamless steel pipe with swivel joints, wire braided armored rubber or other hose material acceptable to the Commandant, shall be fitted to the liquid or vapor lines during filling and discharging of the cargo tanks.

(b) Hose subject to tank pressure shall be designed for a bursting pressure of not less than five times the maximum safety relief valve setting of the tank.

(c) Hose subject to discharge pressure of pumps or vapor compressors shall be designed for a bursting pressure of not less than five times the pressure of setting of the pump or compressor relief valve.

(d) Before being placed in service, each new cargo hose, with all necessary fittings attached, shall be hydrostatically tested by the manufacturer to a pressure of not less than twice the maximum pressure to which it may be subjected in service. The hose shall be marked with the maximum pressure guaranteed by the manufacturer.

#### § 98.25-85 Electrical bonding.

(a) Each cargo tank shall be electrically grounded to the hull. The

cargo vessel shall be electrically connected to the shore piping prior to connecting the cargo hose. This electrical connection shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

[CGFR 65-50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70-10, 35 FR 3712, Feb. 25, 1970]

#### § 98.25-90 Special operating requirements.

(a) Repairs involving welding or burning shall not be undertaken on the cargo tanks or piping while anhydrous ammonia in either the liquid or vapor state is present in the system.

(b) During the time anhydrous ammonia is laden in the tanks the vessel shall be under constant surveillance.

(c) Authorization from the Commandant (CG-OES) shall be obtained to transport lading other than anhydrous ammonia in the cargo tanks.

(d) Sufficient hose stations shall be installed with adequate water supply so that if leakage of anhydrous ammonia occurs the vapors may be removed by use of a stream of water.

(e)(1) At least two units of approved self-contained breathing apparatus, one stowed forward of the cargo tanks and one stowed aft of the cargo tanks, shall be carried on board the vessel at all times.

(2) All approved self-contained breathing apparatus, masks and respiratory protective devices shall be of types suitable for starting and operating at the temperatures encountered, and shall be maintained in good operating condition.

(3) Personnel involved in the filling or discharge operations shall be adequately trained in the use of the equipment.

(4) For all self-propelled cargo vessels, during filling or discharge operations every person on the vessel shall carry on his person or have close at hand at all times a canister mask approved for ammonia; or each person shall carry on his person a respiratory protective device which will protect the wearer against ammonia vapors and provide respiratory protection for emergency escape from a contaminated area which would result from cargo

leakage. This respiratory protective equipment shall be of such size and weight that the person wearing it will not be restricted in movement or in the wearing of lifesaving device.

(f) While fast to a dock, a vessel during transfer of bulk cargo shall display a red flag by day or a red light by night, which signal shall be so placed that it will be visible on all sides. When at anchor, a vessel during transfer of bulk cargo shall display a red flag by day, which signal shall be so placed that it will be visible on all sides.

[CGFR 70–10, 35 FR 3712, Feb. 25, 1970, as amended by CGD 82–063b, 48 FR 4781, Feb. 3, 1983; CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50730, Sept. 27, 1996; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

**§ 98.25–95 Tests and inspections.**

(a) Each tank shall be subjected to the tests and inspections described in this section in the presence of a marine inspector, except as otherwise provided in this part.

(1) An internal inspection of the tank is conducted within—

(i) Ten years after the last internal inspection if the tank is a pressure-vessel type cargo tank on an unmanned barge described under § 151.01–25(c) of this chapter and carrying cargo at temperatures of  $-67^{\circ}\text{F}$  ( $-55^{\circ}\text{C}$ ) or warmer; or

(ii) Eight years after the last internal inspection if the tank is of a type other than that described in paragraph (a)(1)(i) of this section.

(2) An external examination of unlagged tanks and the visible parts of lagged tanks is made at each inspection for certification and periodic inspection. The owner shall ensure that the amount of insulation deemed necessary by the marine inspector is removed from insulated tanks during each internal inspection to allow spot external examination of the tanks and insulation, or the thickness of the tanks may be gauged by a non-destructive means accepted by the marine inspector without the removal of insulation.

(3) If required by the Officer in Charge, Marine Inspection the owner shall conduct nondestructive testing of each tank in accordance with § 98.25–97.

(4) If the tank is a pressure vessel type cargo tank with an internal inspection interval of 10 years, and is 30 years old or older, determined from the date it was built, the owner shall conduct nondestructive testing of each tank in accordance with § 98.25–97, during each internal inspection.

(b) A hydrostatic test of  $1\frac{1}{2}$  times the maximum allowable pressure as determined by the safety relief valve setting shall be made at any time that the inspector considers such hydrostatic test necessary to determine the condition of the tank. If the jacket and lagging are not removed during the hydrostatic tests prescribed in this paragraph, the tank shall hold the hydrostatic test pressure for at least 20 minutes without a pressure drop.

(c) The safety relief valves shall be popped in the presence of a marine inspector by either liquid, gas or vapor pressure at least once every four years to determine the accuracy of adjustment and, if necessary, shall be reset.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 67–86, 32 FR 17622, Dec. 9, 1967; CGD 85–061, 54 FR 50965, Dec. 11, 1989; USCG–1999–4976, 65 FR 6503, Feb. 9, 2000]

**§ 98.25–97 Nondestructive testing.**

(a) Before nondestructive testing may be conducted to meet § 98.25–95(a) (3) and (4), the owner shall submit a proposal to the Officer in Charge, Marine Inspection for approval that includes—

(1) The test methods and procedures to be used, all of which must meet section V of the ASME Boiler and Pressure Vessel Code (1986);

(2) Each location on the tank to be tested; and

(3) The test method and procedure to be conducted at each location on the tank.

(b) If the Officer in Charge, Marine Inspection rejects the proposal, the Officer in Charge, Marine Inspection informs the owner of the reasons why the proposal is rejected.

(c) If the Officer in Charge, Marine Inspection accepts the proposal, then the owner shall ensure that—

(1) The proposal is followed; and

(2) Nondestructive testing is performed by personnel meeting ASNT “Recommended Practice No. SNT-TC-



1A (1988), Personnel Qualifications and Certification in Nondestructive Testing.”

(d) Within 30 days after completing the nondestructive test, the owner shall submit a written report of the results to the Officer in Charge, Marine Inspection.

[CGD 85-061, 54 FR 50965, Dec. 11, 1989]

### Subpart 98.30—Portable Tanks and Intermediate Bulk Containers

SOURCE: CGD 73-172, 39 FR 22954, June 25, 1974, unless otherwise noted.

#### § 98.30-1 Applicability.

(a) This subpart contains regulations concerning transfer of combustible liquids, certain flammable liquids, and other hazardous materials to or from portable tanks and Intermediate Bulk Containers (IBCs) on vessels.

(b) This subpart applies to the following portable tanks and IBCs:

(1) A marine portable tank (MPT).

(2) An IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank.

(3) A portable tank authorized for hazardous materials by the Associate Administrator for Hazardous Materials Safety (AAHMS) of the Pipeline and Hazardous Materials Safety Administration (PHMSA), under a special permit or Competent Authority Approval issued in accordance with 49 CFR part 107, subpart H.

(4) An IBC, but restricted to those metal IBCs as described in § 98.30-6 of this subpart.

[CGD 84-043, 55 FR 37411, Sept. 11, 1990, as amended by CGD 97-057, 62 FR 51046, Sept. 30, 1997; USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

#### § 98.30-2 Incorporation by Reference.

(a) Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and

Engineering Standards (CG-ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) International Maritime Organization (IMO), 4 Albert Embankment, London SE1 7SR, United Kingdom, (Phone (44 020 7735 7611); Web site: <http://www.imo.org>.)

(1) International Maritime Dangerous Goods (IMDG) Code, 2012 Edition, Section: 4.2.0.1, IBR approved for § 98.30-3.

(2) International Maritime Dangerous Goods (IMDG) Code, 2012 Edition, Section: 6.7.2 through 6.7.2.20.3, IBR approved for § 98.30-5.

[USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

#### § 98.30-3 Definitions.

*IBC* means an intermediate bulk container as defined in 49 CFR 171.8.

*IM 101 portable tank and IM 102 portable tank* means a portable tank constructed and approved by PMSA and manufactured on or before January 1, 2003, that meets the requirements for continued use under 49 CFR 173.32.

*IMO Type 1 portable tank* means a portable tank constructed in accordance with International Maritime Dangerous Goods (IMDG) Code (2012 Edition), that meets the definition of an IMO Type 1 portable tank under Section 4.2.0.1 of the IMDG Code (incorporated by reference, see § 98.30-2), and that meets the provisions for continued use under the IMDG Code.

*IMO Type 2 portable tank* means a portable tank constructed in accordance with the IMDG Code, that meets the definition of an IMO Type 2 portable tank under Section 4.2.0.1 of the IMDG Code (incorporated by reference, see § 98.30-2), and that meets the provisions for continued use under the IMDG Code.

*MPT* means a marine portable tank that was inspected and stamped by the Coast Guard on or before September 30,

#### § 98.30-4

1992, and that meets the applicable requirements in this part and part 64 of this chapter.

*UN portable tank* means a portable tank constructed in accordance with 49 CFR 178.274 and 178.275, and approved in accordance with 49 CFR 173.32 and 178.273.

[USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

#### § 98.30-4 Vessels carrying MPTs.

Each MPT on a vessel to which this part applies must bear, on a metal or other corrosion-resistant tag—

(a) An inspection date for pressure relief devices and vacuum relief devices in accordance with paragraph (b) of § 64.79 of this chapter that is not more than 12 months earlier than the month in which the vessel is operated;

(b) An inspection date in accordance with paragraph (b) of § 64.81 of this chapter that is not more than 30 months earlier than the month during which the vessel is operated; and

(c) A hydrostatic test date in accordance with paragraph (b) of § 64.83 of this chapter that is not more than 60 months earlier than the month during which the vessel is operated.

[CGD 84-043, 55 FR 37411, Sept. 11, 1990. Redesignated by USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

#### § 98.30-5 Vessels carrying portable tanks other than MPTs.

(a) Each portable tank, other than an MPT, on board a vessel to which this part applies must be one of the following:

(1) An IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank authorized for its contents in accordance with 49 CFR 172.101, Hazardous Materials Table, Columns 7 and 8C.

(2) A portable tank authorized by PHMSA's AAHMS under a special permit or Competent Authority Approval issued in accordance with 49 CFR part 107, subpart H.

(i) According to the terms of the special permit or Competent Authority Approval, equivalent to an IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank.

(ii) Authorized for its contents under the terms of the special permit or by written acknowledgment from the AAHMS.

#### 46 CFR Ch. I (10-1-23 Edition)

(b) Each IM 101, IM 102, or UN portable tank must be tested and inspected in accordance with 49 CFR part 180, subpart G and follow specifications in accordance with 49 CFR 178.275(c).

(c) Each IMO Type 1 or IMO Type 2 portable tank must be tested and inspected in accordance with Sections 6.7.2 through 6.7.2.20.3 of the IMDG Code (incorporated by reference, see § 98.30-2).

(d) Each portable tank authorized under a special permit or Competent Authority Approval from PHMSA's AAHMS must be inspected, tested, maintained, and used in accordance with the terms of that special permit or Competent Authority Approval.

[CGD 84-043, 55 FR 37411, Sept. 11, 1990; 56 FR 13598, Apr. 3, 1991, as amended by CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; CGD 97-057, 62 FR 51046, Sept. 30, 1997. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54786, Sept. 6, 2013]

#### § 98.30-6 Vessels carrying IBCs.

Intermediate Bulk Containers (IBCs) with a classification of 31A may be used on a vessel to which this part applies and must meet at a minimum the following constructional requirements:

(a) The shell thickness must be a minimum 6.36 mm (0.25 inches) in reference steel.

(b) There must be a self-closing relief valve set to open at no less than 5 psig.

(c) Closures used on fill openings, in excess of 20 square inches, must be equipped with a device to prevent them from fully opening without first relieving internal pressure.

(d) All venting requirements must be followed in accordance with 49 CFR 178.345-10, Table 1.

[USCG-2011-0088, 78 FR 54786, Sept. 6, 2013]

#### § 98.30-7 Materials authorized for transfer to and from a portable tank.

(a) The following hazardous materials may be transferred to and from a portable tank under this subpart:

(1) Any Grade D or Grade E combustible liquid listed in § 30.25-1 of this chapter that does not meet the definition of any hazard class in 49 CFR part

173 other than that of “flammable liquid”, “combustible liquid”, “hazardous substance, or hazardous waste”;

(2) Any corrosive liquid that—

(i) Is compatible with the materials of the tank;

(ii) Meets the definition of no other hazard class in 49 CFR part 173; and

(iii) Is authorized for transport in an IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank under subpart F of 49 CFR part 173;

(3) Any hazardous material listed in Table 98.30-7(a)—Certain Hazardous Materials Authorized For Transfer To and From Portable Tanks;

(4) Any environmentally hazardous substance, liquid, N.O.S., Class 9, listed in table 1 of appendix A of 49 CFR 172.101, and any aqueous solution of an environmentally hazardous substance, solid, N.O.S., Class 9, listed in that table, that meets the definition of “hazardous substance” in 49 CFR 171.8; and

(5) Other cargoes subject to regulation under 49 CFR parts 171 through 176 when authorized in writing by the Commandant. Requests for such authorization must be submitted as prescribed in §153.900(d)(1) of this chapter.

(b) Grade D and Grade E combustible liquids with a flashpoint of 100 °F (38 °C) or higher by closed cup test that are not listed by name in the Hazardous Materials Table of 49 CFR 172.101 may be transferred to and from an MPT, IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank conforming to the T Code “T1” specified in 49 CFR 172.102(c)(7)(i).

(c) Sulfuric acid having a concentration of not over 51 percent may be transferred to or from an MPT only if the MPT is lined with rubber or with material equally acid-resistant and equally strong and durable.

(d) Sulfuric acid having a concentration of 65.25 percent or greater may be transferred to or from any portable tank; *provided* that the corrosion rate on steel, measured at 100 °F (38 °C), of sulfuric acid having a concentration of greater than 65.25 percent is not greater than the corrosion rate of such an acid having a concentration of 65.25 percent.

(e) Environmentally hazardous substances (see paragraph (a)(4) of this

section) may be transferred only to and from an MPT, IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank.

(f) A portable tank authorized for transfer of hazardous material in this section may be substituted by another portable tank in accordance with 49 CFR 173.32(b).

(g) No hazardous material not referred to in this section may be transferred to or from a portable tank on-board a vessel.

TABLE 98.30-7(a)—CERTAIN HAZARDOUS MATERIALS AUTHORIZED FOR TRANSFER TO AND FROM PORTABLE TANKS

Acetone
Alcohols; flash point of 80 °F (27 °C) or less by open-cup test
Benzene
Gasoline
Mixtures of Hydrochloric acid and hydrofluoric acid containing not more than 36 percent hydrochloric acid or 2 percent hydrofluoric acid <sup>1</sup>
Methyl Ethyl Ketone
Toluene (Toluol)

NOTE:

<sup>1</sup> Each MPT must be lined with rubber or with material equally acid-resistant and equally strong and durable.

[CGD 84-043, 55 FR 37411, Sept. 11, 1990; 55 FR 40755, Oct. 4, 1990, as amended by CGD 97-057, 62 FR 51046, Sept. 30, 1997. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54786, Sept. 6, 2013]

**§ 98.30-8 Materials authorized for transfer to and from an IBC.**

Any hazardous material listed in Table 98.30-7(a) of § 98.30-7 may be transferred to and from an IBC under this subpart, with the exception of Liquid Nitrogen.

[USCG-2011-0088, 78 FR 54786, Sept. 6, 2013]

**§ 98.30-9 Lifting a portable tank or IBC.**

(a) No person may lift a portable tank and/or IBC with another portable tank and/or IBC.

(b) All lifting requirements for IBCs must be followed in accordance with 49 CFR 178.704(c) and (f).

[USCG-2011-0088, 78 FR 54786, Sept. 6, 2013]

## § 98.30-10

### § 98.30-10 Smoking.

No person may smoke within 50 feet of a portable tank or IBC on the deck on which the tank is stowed.

[CGD 73-172, 39 FR 22954, June 25, 1974. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

### § 98.30-11 Gaskets and lining.

No person may transfer a hazardous material to or from a portable tank onboard a vessel unless each gasket and the lining of the portable tank are made of a material that is—

(a) Chemically compatible with the product for which the portable tank is approved; and

(b) Resistant to deterioration by the product for which the portable tank is approved.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

### § 98.30-12 Stowage of portable tanks and IBCs.

(a) No person may operate a vessel to which this subpart applies unless each portable tank and/or IBC is stowed on an open deck.

(b) No person may stow a portable tank and/or IBC—

(1) In the vicinity of another tank that contains a chemically incompatible product; and

(2) Unless all electrical equipment is explosion-proof or intrinsically safe, as defined in §§111.105-9 and 111.105-11 of this chapter, in the area of the tank and its associated equipment that is—

(i) Within 10 feet in any horizontal direction; and

(ii) Within 8 feet above the deck.

(c) All IBCs must be secured as specified in 49 CFR 176.74.

[CGD 73-172, 39 FR 22954, June 25, 1974, as amended by CGD 84-043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

### § 98.30-13 Pipe connections, and filling and discharge openings.

(a) No person may transfer a hazardous material to or from a portable tank or IBC onboard a vessel, unless each filling and discharge opening in

## 46 CFR Ch. I (10-1-23 Edition)

the tank bottom is equipped with the following:

(1) For an IM 101, IM 102, IMO Type 1, IMO Type 2, or UN portable tank, the closures specified in 49 CFR 178.275.

(2) For an MPT, the valves and closures specified in §§64.33 through 64.41 of this chapter.

(3) For an IBC, the closures specified in 49 CFR 178.705.

(b) A manifold cannot be used when transferring a hazardous material to or from a portable tank or IBC onboard a vessel, unless the portable tank or IBC is equipped with a remote or automatic shutoff valve or other automatic means of closure that will activate during an emergency.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

### § 98.30-14 Cargo pumps.

No person may operate a cargo pump to transfer a product to or from a portable tank unless the pump is installed—

(a) Above deck; or

(b) Below deck, in conformance with subpart 32.60 of this chapter.

[CGD 73-172, 39 FR 22954, June 25, 1974. Redesignated by USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

### § 98.30-15 Ground connection.

No person may transfer an inflammable or combustible product to or from a vessel unless—

(a) The portable tank or IBC and its pumping equipment is electrically grounded to the hull of the vessel; and

(b) The vessel is electrically grounded to an offshore platform, shore piping, or another vessel by a—

(1) Cargo hose constructed with an integral grounding wire if the end connections are used for electrical continuity; or

(2) Separate grounding that is maintained until the cargo hose is disconnected and drained.

[CGD 73-172, 39 FR 22954, June 25, 1974. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787 Sept. 6, 2013]

**§ 98.30-16 Requirements for ships carrying NLSs in portable tanks and IBCs.**

(a) The person in charge of a ship, except a ship under subpart 98.31 of this chapter, that carries an NLS in a portable tank must ensure that—

(1) The ship's Certificate of Inspection is endorsed with the name of the NLS;

(2) Any letters issued by the Commandant (CG-ENG) prescribing additional conditions for endorsement are attached; and

(3) Each operating requirement specified in writing by Commandant (CG-ENG) as a condition for endorsement is met.

(b) To have a ship's Certificate of Inspection endorsed to allow the carriage of NLSs in portable tanks, the—

(1) Owner of the ship must make a request to the Commandant (CG-ENG) following the procedures for requesting alternatives in § 153.10(a) of this chapter; and

(2) The ship must meet any design and equipment requirements specified in writing as a condition for the endorsement by the Commandant (CG-ENG).

(c) Any ship that carries NLSs in an IBC, as described in § 98.30-6, must meet all requirements in accordance with 46 CFR 125.120.

[CGD 81-101, 53 FR 28974, Aug. 1, 1988. Redesignated by CGD 84-043, 55 FR 37411, Sept. 11, 1990, and amended by CGD 84-043, 55 FR 37412, Sept. 11, 1990; CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2012-0832, 77 FR 59780, Oct. 1, 2012. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

**§ 98.30-17 Leakage containment.**

(a) No person may transfer a product to or from a vessel unless there is a container or enclosed deck area that meets the requirements of this section under or around each transfer connection area.

(b) Each container or enclosed deck area must hold, in all conditions of vessel list or trim to be encountered during the transferring operation, 5 gallons or more and must have a means of draining or removing any leakage

without mixing incompatible products or discharging into the water.

[CGD 73-172, 39 FR 22954, June 25, 1974. Redesignated by USCG-2011-0088, 78 FR 54785, Sept. 6, 2013]

**§ 98.30-18 Qualifications of person in charge.**

(a) The operator or agent of each vessel must designate the person in charge of a transfer of liquid cargo in bulk to or from a portable tank or IBC.

(b) Each person designated as person in charge of a transfer of liquid cargo in bulk to or from a portable tank or IBC must—

(1) On a tank barge, hold a "Tankerman-PIC", restricted "Tankerman-PIC", "Tankerman-PIC (Barge)", or restricted "Tankerman-PIC (Barge)" endorsement on his or her merchant mariner credential or merchant mariner's document authorizing transfer of the classification of cargo involved;

(2) On a self-propelled tank vessel, or on a tankship, carrying oil or hazardous material in bulk, hold a valid merchant mariner credential, license, or certificate authorizing service as a master, mate, pilot, engineer, or operator aboard that vessel, and a Tankerman-PIC or a restricted Tankerman (PIC) endorsement.

[CGD 79-116, 60 FR 17157, Apr. 4, 1995, as amended by 62 FR 25135, May 8, 1997; USCG-2006-24371, 74 FR 11265, Mar. 16, 2009. Redesignated and amended by USCG-2011-0088, 78 FR 54785, 54787, Sept. 6, 2013]

**§ 98.30-19 Supervision by person in charge.**

(a) No person may connect, top off, disconnect, or engage in any other critical product transfer operation unless the person in charge designated in § 98.30-17, personally supervises the operation.

(b) No person may start the flow of a product to or from a portable tank or IBC unless instructed to do so by the person in charge.

## § 98.30-21

(c) No person may transfer a product to or from a portable tank or IBC unless the person in charge is in the immediate vicinity of the transfer operation and immediately available to the person transferring the product.

[CGD 73-172, 39 FR 22954, June 25, 1974, as amended by USCG-2011-0088, 78 FR 54787, Sept. 6, 2013]

### § 98.30-21 Inspection prior to transfer.

No person may transfer to or from a portable tank or IBC a product with a flashpoint of less than 300 °F unless the person in charge of the transfer determines that—

(a) Each warning signal and sign required in §§ 98.30-33 and 98.30-35 is displayed;

(b) No repair work in the vicinity of any portable tank or IBC is done without permission of the person in charge of the transfer operation; and

(c) Riveting, welding, burning, or a similar operation is not done in the vicinity of a portable tank or IBC unless an inspection by the person in charge of the transfer ensures that the operation can be done safely.

[CGD 73-172, 39 FR 22954, June 25, 1974, as amended by USCG-2011-0088, 78 FR 54787, Sept. 6, 2013]

### § 98.30-23 Requirements for transfer; general.

No person may transfer a product to or from a portable tank or IBC unless—

(a) The vessel's moorings are strong enough to hold in all expected conditions of surge, current, and weather and are long enough to allow adjustment for changes in draft, drift, and tide during the transfer operation;

(b) Transfer hoses or loading arms are long enough to allow the vessel to move the limits of its mooring without placing strain on the hose, loading arm, or transfer piping system;

(c) Each transfer hose is supported in a manner that prevents strain on its coupling;

(d) Each part of the transfer system necessary to allow the flow of the product is lined up for the transfer;

(e) Each transfer hose has no loose covers, kinks, bulges, soft spots, and no gouges, cuts, or slashes that penetrate the hose reinforcement;

## 46 CFR Ch. I (10-1-23 Edition)

(f) Each coupling meets the requirements of § 98.30-27;

(g) Each scupper or drain in a discharge containment system is closed;

(h) The person in charge of the transfer operations on the transferring vessel or facility and the person in charge of the transfer operations on the receiving vessel or facility have held a conference, to ensure that each person in charge understands—

(1) The identity of the product to be transferred;

(2) The sequence of transfer operations;

(3) The transfer rate;

(4) The name or title and location of each person participating in the transfer operation;

(5) Particulars of the transferring and receiving systems;

(6) Critical stages of the transfer operations;

(7) Federal, state, and local rules that apply to the transfer of dangerous articles and combustible liquids;

(8) Emergency procedures;

(9) Discharge containment procedures;

(10) Discharge reporting procedures;

(11) Watch or shift arrangement; and

(12) Transfer shutdown procedures;

(i) The person in charge of the transfer operations on the transferring vessel or facility and the person in charge of transfer operations on the receiving vessel or facility agree to begin the transfer operations; and

(j) Each person in charge required in this subpart is present.

[CGD 73-172, 39 FR 22954, June 25, 1974, as amended by USCG-2011-0088, 78 FR 54787, Sept. 6, 2013]

### § 98.30-25 Requirements for transfer; cargo handling system.

No person may transfer a product to or from a portable tank or IBC unless the cargo handling system meets the requirements in subpart F of part 64 of this chapter.

[CGD 73-172, 39 FR 22954, June 25, 1974, as amended by USCG-2011-0088, 78 FR 54787, Sept. 6, 2013]

### § 98.30-27 Connections.

(a) Each person who makes a connection for a transfer operation must—

(1) Use suitable material in joints and couplings to make a tight seal;

(2) Use a bolt in at least every other hole and in no case less than four bolts in each temporary connection utilizing an American National Standards Institute (ANSI) standard flange coupling;

(3) Use a bolt in each hole of couplings other than ANSI standard flange couplings;

(4) Use a bolt in each hole of each permanently connected flange coupling;

(5) Use bolts of the same size in each bolted coupling; and

(6) Tighten each bolt and nut uniformly to distribute the load.

(b) No person who makes a connection for a transfer operation may use any bolt that shows signs of strain or is elongated or deteriorated.

(c) No person may use a connection for transfer operations unless it is—

(1) A bolted or full threaded connection; or

(2) A quick-connect coupling accepted by the Coast Guard.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

#### § 98.30–29 Piping incompatible products.

No person may pipe a portable tank or IBC with another tank that contains a chemically incompatible product.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

#### § 98.30–31 Conditions for pumping.

No person may start pumping a product to or from a portable tank or IBC or if started, continue to pump if—

(a) There is an electrical storm;

(b) A fire occurs—

(1) On the deck;

(2) On the vessel;

(3) In the vicinity; or

(c) The cargo hose ruptures or leaks.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

#### § 98.30–33 Warning signals.

(a) If the vessel is moored, no person may transfer to or from a portable tank or IBC a product with a flashpoint

of less than 300 °F unless the person in charge displays a—

(1) Red flag by day; and

(2) Red electric lantern by night.

(b) If the vessel is at anchor, no person may transfer to or from a portable tank or IBC a product with a flashpoint of less than 300 °F unless the person in charge displays a red flag.

(c) The signal required in paragraphs (a) and (b) of this section must be visible on all sides of the vessel.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

#### § 98.30–35 Warning sign at gangway.

If a vessel is moored, no person may transfer to or from a portable tank or IBC a product with a flashpoint of less than 300 °F unless the person in charge displays at each gangway or access that is open for use a warning placard containing the following in letters 2 inches in height or larger:

WARNING

No open lights

No smoking

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

#### § 98.30–37 Firefighting requirements.

No person may lift a portable tank on or off a vessel, or transfer a product with a flashpoint of less than 300 °F to or from a portable tank or IBC unless—

(a) Water pressure is maintained on the firemain;

(b) Firehoses, fitted with a Coast Guard-approved combination nozzle, are attached to each fire hydrant in the vicinity of the portable tanks;

(c) Except as provided in § 98.30–39, fire extinguishers of a dry chemical type are—

(1) Located to protect the deck area 10 feet in any horizontal direction from each portable tank and its associated cargo handling system;

(2) Coast Guard approved; and

(3) Capable of covering the deck area without being moved;

(d) In a deck area of 500 square feet or less, there are two or more dry chemical fire extinguishers of 300 pounds or

## § 98.30–39

more total capacity of extinguishing agent; and

(e) In a deck area of more than 500 square feet, there are three or more dry chemical fire extinguishers of 450 pounds or more total capacity of extinguishing agent.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

### § 98.30–39 Alternate fire extinguishing system.

An alternative to the fire extinguishing system required in § 98.30–37(c) may be approved in accordance with procedures contained in subpart 90.15 of this chapter.

## Subpart 98.31—Control of Pollution From NLS Cargoes on Ocean-going Offshore Supply Vessels

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49321, Sept. 19, 1997, unless otherwise noted.

### § 98.31–5 Applicability.

This subpart applies to each offshore supply vessel contracted for, or the keel of which was laid, before March 15, 1996, that is oceangoing as defined in 33 CFR 151.05(j) and that carries noxious liquid substances (NLSs) as defined in § 153.2 of this chapter in bulk, including carriage in portable tanks.

### § 98.31–10 Certificate of inspection and NLS certificate endorsements.

(a) The Coast Guard issues the endorsed Certificate of Inspection or NLS Certificate required by § 98.31–15 for every vessel under this subpart to carry NLSs if the vessel—

(1) Has the Cargo Record Book prescribed in § 153.490(a)(1) of this chapter; and

(2) Unless it discharges no NLS residues as defined in § 153.2 of this chapter to the sea, meets the requirements in §§ 153.470 through 153.491 of this chapter.

(b) Each vessel under this subpart that does not meet the requirements in §§ 153.470 through 153.491 of this chapter must have a statement on its Certificate of Inspection or NLS Certificate stating that the vessel is prohibited

## 46 CFR Ch. I (10–1–23 Edition)

from discharging NLS residues to the sea.

### § 98.31–15 Operating requirements.

No person may operate a vessel that carries a bulk liquid cargo of NLS unless the vessel—

(a) Has on board a Certificate of Inspection and, if it is a vessel making a foreign voyage, an NLS Certificate endorsed under § 98.31–10 with the name of the NLS cargo;

(b) Discharges no NLS residues to the sea unless the vessel meets—

(1) The equipment requirements in § 98.31–10(a)(2); and

(2) The operating requirements prescribed for oceangoing ships carrying NLSs in §§ 153.901, 153.903, 153.909, and 153.1100 through 153.1132 of this chapter.

## Subpart 98.33— Portable Tanks and IBCs for Certain Grade E Combustible Liquids and Other Regulated Materials

SOURCE: CGD 84–043, 55 FR 37412, Sept. 11, 1990, unless otherwise noted.

### § 98.33–1 Applicability.

(a) This subpart contains regulations concerning transfer of certain low-hazard materials to and from portable tanks on vessels

(b) This subpart applies to the following portable tanks:

(1) A DOT-specification 57 portable tank constructed on or before October 1, 1996, or a UN portable tank (see 49 CFR 173.32 and § 98.30–3).

(2) A portable tank authorized under 49 CFR 176.340(b).

(3) A portable tank approved by the Commandant under subpart 50.20 of this chapter.

(4) An Intermediate Bulk Container (IBC), but restricted to those metal IBCs as described in § 98.30–6.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990; 56 FR 13598, Apr. 3, 1991, as amended by CGD 97–057, 62 FR 51046, Sept. 30, 1997; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012; USCG–2011–0088, 78 FR 54787, Sept. 6, 2013]

### § 98.33–3 Cargoes authorized.

The following cargoes are authorized for transfer to and from portable tanks or IBCs authorized by § 98.33–5:



(a) Grade E combustible liquids that have a closed-cup flashpoint of 300 °F or higher and that meet the definition of no DOT hazard class in 49 CFR part 173;

(b) Any environmentally hazardous substance, liquid N.O.S., Class 9, listed in table 1 of appendix A of 49 CFR 172.101, and any aqueous solution of an environmentally hazardous substance, solid, N.O.S., Class 9, listed in that table, that meets the definition of “Hazardous substance” in 49 CFR 171.8.

(c) Other cargoes subject to regulation under 49 CFR parts 171 through 176 when authorized in writing by the Commandant (CG-ENG). Requests for such authorization must be submitted as prescribed in §153.900(d)(1) of this chapter.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990, as amended by CGD 97-057, 62 FR 51046, Sept. 30, 1997; USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-5 Portable tanks and IBCs authorized.**

(a) The cargoes authorized under § 98.33-3 may be transferred to and from portable tanks to which this subpart applies if the portable tanks have:

(1) A minimum design pressure of 9 psig.

(2) Pressure-relief devices that may be frangible pressure-relief devices (rupture disks), and that do not open at less than 3 psig.

(b) The cargoes authorized under § 98.33-3 may be transferred to and from IBCs to which this subpart applies if the IBCs meet the requirements in § 98.30-6.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990; USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-7 Pipe and hose connections.**

If a portable tank or IBC authorized under § 98.33-5 of this part has a pipe or hose connection in its bottom, the connection must have a manually operated valve and a bolted flange, threaded cap, or similar device, to protect against leakage of the tank’s contents.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990, as amended by USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-9 Stowage.**

Each portable tank or IBC authorized under § 98.33-5 of this part must be secured to the vessel by devices of sufficient strength and number to prevent the tank from moving in any direction during transport.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990, as amended by USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-11 Smoking.**

No person may smoke when—

(a) Within 50 feet of a portable tank or IBC containing a combustible liquid; and

(b) On the deck where the tank or IBC is stowed.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990, as amended by USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-13 Cargo-handling systems.**

A cargo authorized under § 98.33-3 of this part may not be transferred to or from a portable tank or IBC authorized under § 98.33-5 of this part unless the cargo-handling system meets the requirements of subpart F of part 64 of this chapter.

[CGD 84-043, 55 FR 37412, Sept. 11, 1990, as amended by USCG-2011-0088, 78 FR 54788, Sept. 6, 2013]

**§ 98.33-15 Transfers.**

A cargo authorized under § 98.33-3 of this part may not be transferred to or from a portable tank or IBC authorized under § 98.33-5 of this part unless the following requirements are met:

(a) *Cargo pumps* comply with § 98.30-14 of this part;

(b) *Ground connection* complies with § 98.30-15 of this part;

(c) *Leakage containment* complies with § 98.30-17 of this part;

(d) *Qualification of person in charge* complies with § 98.30-18 of this part;

(e) *Supervision of person in charge* complies with § 98.30-19 of this part;

(f) *Transfers, general*, comply with § 98.30-23 of this part;

(g) *Connections* comply with § 98.30-27 of this part;

(h) Pumping of incompatible products complies with § 98.30-29 of this part;

(i) Conditions for pumping comply with §98.30–31 of this part; and

(j) *Carriage of NLSs* complies with §98.30–16 of this part.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990; USCG–2011–0088, 78 FR 54788, Sept. 6, 2013]

## PART 105—COMMERCIAL FISHING VESSELS DISPENSING PETROLEUM PRODUCTS

### Sec.

105.1 Purpose and applicability.

105.3 Incorporation by reference.

105.5 Definitions.

105.10 Vessel examinations.

105.11 Prohibitions.

105.12 Cargo tank and pumping system requirements.

105.13 Electrical fittings and fixtures.

105.14 Fire extinguishing equipment.

105.15 Cargo transfer operations.

AUTHORITY: 6 U.S.C. 468(b); 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 3703, 4502; 49 U.S.C. 5103; E.O. 12777, sec. 2(d)(2) and (f), 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1(II) (80), (92.a), (92.b).

SOURCE: 81 FR 13283, Mar. 14, 2016, unless otherwise noted.

### § 105.1 Purpose and applicability.

This part implements 46 U.S.C. 3702(d), concerning the applicability to fish processing vessels of statutes relating to the carriage of liquid bulk dangerous cargoes. This part applies to each vessel of not more than 5,000 gross tons, the primary use of which is as a commercial fish processing vessel, and that incidental to its primary use, carries and dispenses limited quantities of flammable or combustible liquid cargo in bulk. Certain provisions in §§105.12 and 105.13 apply only to vessels the construction of which was contracted for before May 31, 1976.

### § 105.3 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved mate-

rial is available for inspection at Coast Guard Headquarters. Contact Commandant (CG–CVC), Attn: Office of Commercial Vessel Compliance, U.S. Coast Guard Stop 7501, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7501; telephone 202–372–1244. Also, it is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, telephone: 610–832–9500, fax: 610–832–9555, <http://www.astm.org>.

(1) ASTM D 323–08, “Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method),” approved December 15, 2008, incorporation by reference approved for §105.5.

(2) [Reserved]

(c) UL (formerly Underwriters Laboratories, Inc.), 12 Laboratory Drive, Research Triangle Park, NC 27709–3995, 919–549–1400, <http://www.ul.com>.

(1) UL 19, Standard for Safety—Lined Fire Hose and Hose Assemblies, Twelfth edition, approved November 30, 2001, incorporation by reference approved for §105.14(d).

(2) [Reserved]

### § 105.5 Definitions.

As used in this part, the italicized terms have the meanings indicated in this section.

*Approved* means approved by the Commandant, U.S. Coast Guard, unless otherwise stated.

*Bulk* means a quantity of a commodity carried as a liquid cargo or liquid-cargo residue, without mark or count, in an integral, fixed, or portable tank. It does not include liquid cargo packaged in a portable tank that is loaded and discharged from a vessel with the contents intact.

*Cargo* means a combustible liquid or flammable liquid transported in commerce by a commercial fish processing vessel for delivery to a recipient inside or outside the fishing industry. It does not include combustible liquids or flammable liquids carried in a tank for