

Coast Guard Marine Safety Center, receives an application for approval on or before May 1, 1991.

(b) Subpart F of this part also applies to portable tanks and to cargo-handling systems for portable tanks authorized under subparts 98.30 and 98.33 of this chapter.

[CGD 84-043, 55 FR 37409, Sept. 11, 1990]

§ 64.5 Definitions.

As used in this part:

(a) *Marine portable tank* or *MPT* means a liquid-carrying tank that—

(1) Has a capacity of 110 gallons or more;

(2) Is designed to be carried on a vessel;

(3) Can be lifted full or empty onto and off a vessel, and can be filled and discharged while on a vessel;

(4) Is not permanently attached to the vessel; and

(5) Was inspected and stamped by the Coast Guard on or before September 30, 1992.

(b) *Tank* means the pressure vessel and the associated fittings of an MPT that come in contact with the product being carried.

(c) *Total containment pressure* means the minimum pressure for total product containment under normal operating conditions at a gauge pressure consisting of the absolute vapor pressure of the product at 122 °F added to the dynamic pressure, based on the tank dimensions and the location of the relief devices, of not less than 5 pounds per square inch gauge (psig) at the top of the tank in the operating position.

(d) *Maximum allowable working pressure* means the maximum gauge pressure at the top of the tank in the operating position at 122 °F, equal to or greater than the total containment pressure as defined in paragraph (c) of this section. The maximum allowable working pressure is used in the calculation of the minimum thickness of each element of the tank, excluding the allowance for corrosion and the thickness for loadings other than pressure, as provided for in the ASME Code.

(e) *Test pressure* means a hydrostatic pressure of at least one and one-half times the maximum allowable working pressure.

(f) *Dynamic loading conditions* means the following:

(1) A loading in the vertical down direction equal to 2 times the weight of the tank and the heaviest product carried.

(2) A loading in the transverse direction equal to the weight of the tank and the heaviest product carried.

(3) A loading in the longitudinal direction equal to the weight of the tank and the heaviest product carried.

(g) *Owner* means the person, corporation, company, partnership, or organization in which is vested the ownership, dominion, or title of a portable tank.

[CGD 73-172, 39 FR 22950, June 25, 1974, as amended by CGD 84-043, 55 FR 37409, Sept. 11, 1990]

§ 64.9 Maintenance, repair, and alteration of MPTs.

(a) Each MPT must be maintained in accordance with the approved plans, this part, and subpart 98.30 of this chapter.

(b) Repair of an MPT is authorized, provided that each repair is in accordance with the approved plans.

(c) No MPT may be altered, except with the written approval of the Commanding Officer, U.S. Coast Guard Marine Safety Center.

(d) After each welded repair or alteration, an MPT must be hydrostatically pressure-tested in accordance with paragraph (a) of § 64.83 of this part.

[CGD 84-043, 55 FR 37409, Sept. 11, 1990]

Subpart B—Standards for an MPT

§ 64.11 Design of MPTs.

An MPT must be designed—

(a) In accordance with the ASME Code and this subpart;

(b) With a maximum gross weight of 55,000 pounds;

(c) To hold a liquid cargo that has a vapor pressure of 43 pounds per square inch absolute (psia) or less at a temperature of 122 °F;

(d) With a minimum service temperature of 0 °F or higher;

(e) With a maximum allowable working pressure of not less than 20 pounds per square inch gauge (psig) but not more than 48 psig; and

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(f) To withstand dynamic loading conditions applied simultaneously.

[CGD 84-043, 55 FR 37410, Sept. 11, 1990; 55 FR 40755, Oct. 4, 1990]

§ 64.13 Allowable stress; tank.

(a) The calculated stress in the tank under design conditions, including dynamic loading conditions applied simultaneously, must not exceed the allowable stress listed in Division 1 of section VIII of the ASME Code, for a design temperature of 122 °F.

(b) The calculated stress in the tank at test pressure must not exceed 75 percent of the minimum yield stress,¹ or 37.5 percent of the minimum tensile stress¹ of the material, whichever is less.

[CGD 73-172, 39 FR 22950, June 25, 1974, as amended by CGD 84-043, 55 FR 37410, Sept. 11, 1990]

§ 64.15 Allowable stress; framework.

The calculated stress for the framework must be 80 percent or less of the minimum yield stress of the framework material under the dynamic loading conditions that are applied simultaneously.

§ 64.17 Minimum tank thickness.

(a) Except as allowed in paragraph (b) of this section, a tank with a diameter of—

(1) 6 feet or less must have a shell and head of $\frac{3}{16}$ inch thickness or more; or

(2) More than 6 feet must have a shell and head of $\frac{1}{4}$ inch thickness or more.

(b) If the tank has additional framework to guard against accidental puncturing of the tank, the shell and head thickness must be $\frac{1}{8}$ inch or more.

§ 64.19 External pressure.

(a) A tank without a vacuum breaker must be designed to withstand an external pressure of 7½ psig or more.

(b) A tank with a vacuum breaker must be designed to withstand an external pressure of 3 psig or more.

¹Listed in Division 1 of section VIII of the ASME Code.

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§ 64.21 Material.

The material for a tank must meet the requirements in Division 1 of section VIII of the ASME Code.

[CGD 73-172, 39 FR 22950, June 25, 1974, as amended by CGD 84-043, 55 FR 37410, Sept. 11, 1990]

§ 64.23 Gasket and lining.

Each gasket and lining must be made of material that is—

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

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

§ 64.25 Cross section.

A tank must have a cross section design that is—

(a) Circular; or

(b) Other than circular and stress analyzed experimentally by the method contained in UG-101 of the ASME Code.

[CGD 73-172, 39 FR 22950, June 25, 1974, as amended by CGD 84-043, 55 FR 37410, Sept. 11, 1990]

§ 64.27 Base.

The base of an MPT must be as wide and as long as the tank.

§ 64.29 Tank saddles.

If a tank is not completely supported by a framework, it must be supported by two or more external saddles, each of which extends to 120 degrees or more of the shell circumference.

§ 64.31 Inspection opening.

An MPT must have an inspection opening that is designed in accordance with Division 1 of section VIII of the ASME Code.

[CGD 73-172, 39 FR 22950, June 25, 1974, as amended by CGD 84-043, 55 FR 37410, Sept. 11, 1990]

§ 64.33 Pipe connection.

Each pipe connection that is not a pressure relief device must be fitted with a manually operated stop valve or closure located as close to the tank as practicable.