§ 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 stress\(^1\) 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 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 \(\frac{3}{8}\) inch thickness or more; or

2. More than 6 feet must have a shell and head of \(\frac{3}{4}\) inch thickness or more.

\(^{1}\)Listed in Division 1 of section VIII of the ASME Code.

(b) If the tank has additional framework to guard against accidental puncturing of the tank, the shell and head thickness must be \(\frac{1}{4}\) inch or more.

§ 64.19 External pressure.

(a) A tank without a vacuum breaker must be designed to withstand an external pressure of 7\(\frac{1}{2}\) psig or more.

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

§ 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