

Standard referred to in an adopted code, specification or standard or in this subchapter shall also be marked in accordance with MSS SP-25 (incorporated by reference; see 46 CFR 54.01-1).

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9977, June 17, 1970; USCG-2003-16630, 73 FR 65167, Oct. 31, 2008]

§ 54.01-30 Loadings (modifies UG-22).

(a) The loadings for pressure vessels shall be as required by UG-22 of section VIII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 54.01-1) except as noted otherwise in this section.

(b) In evaluating loadings for certain pressure vessel applications, the Commandant may require consideration of the following loads in addition to those listed in UG-22 of section VIII of the ASME Boiler and Pressure Vessel Code:

(1) Loading imposed by vessel's attitude in roll, list, pitch and trim.

(2) Dynamic forces due to ship motions.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by USCG-2003-16630, 73 FR 65167, Oct. 31, 2008]

§ 54.01-35 Corrosion (modifies UG-25).

(a) Vessels or portions of vessels subject to corrosion shall be as required by UG-25 of section VIII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 54.01-1) except as noted otherwise in this section.

(b) The pressure portions of pressure vessels shall:

(1) Normally have a corrosion allowance of one-sixth of the calculated thickness, or one-sixteenth inch, whichever is smaller, added to the calculated thickness as determined by the applicable design formula.

(2) Be specifically evaluated in cases where unusually corrosive cargoes will be involved, for the possible increase of this corrosion allowance.

(3) Have no additional thickness required when acceptable corrosion resistant materials are used.

(4) Not normally need additional thickness allowance when the effective stress (either S or SE depending on the design formula used) is 80 percent or

less of the allowable stress listed in section VIII of the ASME Boiler and Pressure Vessel Code for calculating thickness.

(c) Telltale holes shall not be permitted in pressure vessels containing dangerous fluids, such as acid, poison, corrosives, etc.

(d) Exemption from these corrosion allowance requirements will be granted by the Commandant in those cases where:

(1) The contents of the pressure vessel is judged to be sufficiently non-corrosive; and,

(2) Where the external surface is also protected from corrosion. A suitable vapor barrier is adequate protection, while paint or other thin coatings exposed to weather or mechanical damage are not acceptable.

NOTE: No applied linings except as provided in part UCL of section VIII of the ASME Boiler and Pressure Vessel Code shall be acceptable.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; USCG-2003-16630, 73 FR 65167, Oct. 31, 2008]

§ 54.01-40 External pressure (modifies UG-28).

(a) The exemption from external pressure consideration provided by the note under UG-28(f) does not apply.

(b) Vessels which may at times be subjected to partial vacuum due to nature of the contents, temperature, unloading operations, or other facet of employment shall either have vacuum breaker protection or be designed for not less than one-half atmosphere of external pressure.

[CGFR 70-143, 35 FR 19906, Dec. 30, 1970]

Subpart 54.03—Low Temperature Operation

§ 54.03-1 Scope.

The pressure vessels for low temperature operation shall be as required by section VIII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 54.01-1) as modified by this subpart.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by USCG-2003-16630, 73 FR 65167, Oct. 31, 2008]