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 noncorrosive; 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]

§ 54.03–5 General.

(a) Requirements for ferritic steels, high alloy steels, and heat treated ferritic steels are contained in §§ 54.25–10, 54.25–15, and 54.25–20 respectively of this subchapter.

(b) Requirements for toughness testing of material product forms and weldments (including weld procedure qualification and production toughness tests) are contained in subpart 54.05.

(c) Materials suitable for a given minimum service temperature may be used in warmer service. Steels differing in chemical composition, mechanical properties, or heat treatments from those specified may be specially approved by the Commandant. Similarly, aluminum alloys and other nonferrous materials not intended to be covered by these sections may be specially considered by the Commandant for service at any low temperature.

[CGFR 68–82, 33 FR 18828, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9977, June 17, 1970]

Subpart 54.05—Toughness Tests

§ 54.05–1 Scope (replaces UG–84).

The toughness tests of materials used in pressure vessels shall be as required by this subpart in lieu of requirements in UG–84 of section VIII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 54.01–1)

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

§ 54.05–3 Tests required.

(a) Where material or welding toughness tests are required by §§ 54.25–10, 54.25–15, 54.25–20, and subpart 57.03 or 57.06 of this subchapter, the following requirements shall apply:

(1) Additional requirements for ferritic steels with properties enhanced by heat treatment are in § 54.25–20.

(2) Certified reports of toughness tests by the material manufacturer will be acceptable evidence provided the specimens taken are representative of the material delivered and that the material is not subject to treatment during or following fabrication that will reduce its impact properties. If