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valves shall not be installed between the vessel and the safety relief valves. Manifolds for mounting multiple relief valves may be fitted with acceptable interlocking shut off valves so arranged that the required capacity of discharge will be "lined up" at all times.

(e)(1) Each safety relief valve shall be tested in the presence of a marine inspector before being placed in service except as noted otherwise in paragraph (e)(2) of this section. The test shall satisfactorily show that the valve will start to discharge at the required minimum pressure.

(2) Each safety relief valve fitted with a breaking pin and rupture disk need not be tested in the presence of a marine inspector before being placed in service. In lieu thereof, a certificate shall be furnished with the valve attested to by the manufacturer that the test requirements of paragraph (e)(1) of this section have been met.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGD 74-289, 44 FR 26007, May 3, 1979; CGD 82-063b, 48 FR 4781, Feb. 3, 1983; CGD 95-072, 60 FR 50462, Sept. 29, 1995; CGD 96-041, 61 FR 50728, Sept. 27, 1996; USCG-2004-18884, 69 FR 58346, Sept. 30, 2004; USCG-2007-29018, 72 FR 53965, Sept. 21, 2007; USCG-2009-0702, 74 FR 49228, Sept. 25, 2009; USCG-2012-0832, 77 FR 59777, Oct. 1, 2012]

Subpart 54.20—Fabrication by Welding

§ 54.20-1 Scope (modifies UW-1 through UW-65).

(a) Pressure vessels and vessel parts that are fabricated by welding shall be as required by paragraphs UW-1 through UW-65 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 subchapter.

(b) [Reserved]

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by USCG-2003-16630, 73 FR 65170, Oct. 31, 2008]

§ 54.20-2 Fabrication for hazardous materials (replaces UW-2(a)).

(a) Pressure vessels containing hazardous materials as defined in §150.115 of this chapter must be of the class and construction required by subchapter D,

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I, O, or, when not specified, of a class determined by the Commandant.

(b) Class III pressure vessels must not be used for the storage or stowage of hazardous materials unless there is specific authorization in subchapters D, I, or O.

[CGD 77-147, 47 FR 21810, May 20, 1982]

§ 54.20-3 Design (modifies UW-9, UW-11(a), UW-13, and UW-16).

(a) Fabrication by welding shall be in accordance with the provisions of this part and with part 57 of this subchapter.

(b) Welding subject to UW-11(a) of section VIII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 54.01-1) shall be modified as described in §54.25-8 for radiographic examination.

(c) A butt welded joint with one plate edge offset, as shown in Figure UW-13.1(k) of section VIII of the ASME Boiler and Pressure Vessel Code, may only be used for circumferential joints of Class II and Class III pressure vessels.

(d) Attachment welds for nozzles and other connections shall be in accordance with UW-16 of section VIII of the ASME Boiler and Pressure Vessel Code. When nozzles or connections are made to pressure vessels, as shown in Figure UW-16.1 (a) and (c) of the ASME Code, and are welded from one side only, backing strips shall be used unless it can be determined visually that a full penetration weld has been achieved.

(e) When fabricating by welding the minimum joint requirements shall be as specified under the column headed "minimum joint requirements" in Table 54.01-5(b) for various classes of pressure vessels.

(f) Joints in Class II or III pressure vessel cargo tanks must meet the following:

(1) Category A and B joints must be type (1) or (2).

(2) Category C and D joints must have full penetration welds extending through the entire thickness of the vessel wall or nozzle wall.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGD 77-147, 47 FR 21810, May 20, 1982; CGD 85-061, 54 FR 50964, Dec. 11, 1989; USCG-2003-16630, 73 FR 65170, Oct. 31, 2008]