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[CGD 77-140, 54 FR 40599, Oct. 2, 1989; 55 FR 39968, Oct. 1, 1990, as amended by CGD 88-032, 56 FR 35822, July 29, 1991; CGD 95-012, 60 FR 48049, Sept. 18, 1995; CGD 95-027, 61 FR 26000, May 23, 1996; CGD 96-041, 61 FR 50728, Sept. 27, 1996; CGD 97-057, 62 FR 51044, Sept. 30, 1997; CGD 95-028, 62 FR 51200, Sept. 30, 1997; USCG-1999-6216, 64 FR 53224, Oct. 1, 1999; USCG-1999-5151, 64 FR 67178, Dec. 1, 1999; USCG-2004-18884, 69 FR 58346, Sept. 30, 2004]

§ 56.01-3 Power boiler external piping (Replaces 100.1.1, 100.1.2, 111.6, 122.1, 132 and 133).

(a) Power boiler external piping and components must meet the requirements of this part and §§ 52.01-105, 52.01-110, 52.01-115, and 52.01-120 of this chapter.

(b) Specific requirements for power boiler external piping and appurtenances, as defined in §§ 100.1.1 and 100.1.2, appearing in the various paragraphs of ANSI B31.1, are not adopted unless specifically indicated elsewhere in this part.

[CGD 77-140, 54 FR 40602, Oct. 2, 1989; 55 FR 39968, Oct. 1, 1990]

§ 56.01-5 Adoption of ANSI (American National Standards Institute) Code B31.1 for pressure and power piping, and other standards.

(a) Piping systems for ships and barges shall be designed, constructed, and inspected in accordance with B31.1, the “Code for Pressure Piping, Power Piping,” of the ANSI (American National Standards Institute), as limited, modified, or replaced by specific requirements in this part. The provisions in the appendices to ANSI-B31.1 are adopted and shall be followed when the requirements in ANSI-B31.1 or the regulations in this part make them mandatory. For general information Table 56.01-5(a) lists the various paragraphs, etc., in ANSI-B31.1 which are limited, modified, replaced, or reproduced by regulations in this part.

TABLE 56.01-5(A)—LIMITATIONS AND MODIFICATIONS IN THE ADOPTION OF ANSI-B31.1 CODE FOR PRESSURE AND POWER PIPING

| Section or paragraph in ANSI-B31.1, and disposition | Unit in this part |
|---|------------------------------------|
| 100.1 replaced by | 56.01-1. |
| 100.2 modified by | 56.07-5. |
| 101 through 104.7 modified by | 56.07-10. |
| 101.2 modified by | 56.07-10(a), (b). |
| 101.5 replaced by | 56.07-10(c). |
| 102.2 modified by | 56.07-10(d). |
| 102.2.5(d) replaced by | 56.50-40. |
| 102.3 and 104.1.2 modified by | 56.07-10(e). |
| 104.3 modified by | 56.07-10(f). |
| 104.4 modified by | 56.07-10(e). |
| 104.5.1 modified by | 56.30-10. |
| 105 through 108 replaced by | 56.10-1 through 56.25-20. |
| 110 through 118 replaced by | 56.30-1 through 56.30-35. |
| 119.5.1 replaced by | 56.35-10, 56.35-15, 56.35-35. |
| 119.7 replaced by | 56.35-1. |
| 122.3 modified by | 56.50-97. |
| 122.6 through 122.10 replaced by | 56.50-1 through 56.50-80. |
| 123 replaced by | 56.60-1. |
| Table 126.1 is replaced by | 56.30-5(c)(3), 56.60-1. |
| 127 through 135.4 replaced by | 56.65-1, 56.70-1 through 56.90-10. |
| 136 replaced by | 56.95-1 through 56.95-10. |
| 137 replaced by | 56.97-1 through 56.97-40. |

(b) When a section or paragraph of the regulations in this part relates to material in ANSI-B31.1 Code (American National Standard Code for Pressure Piping, Power Piping), the relationship with this code will be shown immediately following the heading of the

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section or at the beginning of the paragraph as follows:

(1) (Modifies _____.) This indicates that the material in the ANSI-B31.1 so numbered for identification is generally applicable but is being altered, amplified or augmented.

(2) (Replaces _____.) This indicates that the material in the ANSI-B31.1 so numbered for identification does not apply.

(3) (Reproduces _____.) This indicates that the material in the ANSI-B31.1 so numbered for identification is being identically reproduced for convenience, not for emphasis.

(c) As stated in §50.15-10 of this chapter, the standards of the ANSI (American National Standards Institute) specifically referred to in this part shall be the governing requirements for the subject matters covered unless specifically limited, modified or replaced by other regulations in this subchapter. See §56.60-1(b) for the other adopted commercial standards applicable to piping systems which also form a part of this subchapter.

[CGFR 68-82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9978, June 17, 1970; CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; CGD 73-254, 40 FR 40164, Sept. 2, 1975; CGD 77-140, 54 FR 40602, Oct. 2, 1989]

§56.01-10 Plan approval.

(a) Plans and specifications for new construction and major alterations showing the respective piping systems shall be submitted, as required by subpart 50.20 of this subchapter.

(b) Piping materials and appliances, such as pipe, tubing, fittings, flanges, and valves, except safety valves and safety relief valves covered in part 162 of subchapter Q (Specifications) of this chapter, are not required to be specifically approved by the Commandant, but shall comply with the applicable requirements for materials, construction, markings, and testing. These materials and appliances shall be certified as described in part 50 of this subchapter. Drawings listing material specifications and showing details of welded joints for pressure-containing appurtenances of welded construction shall be submitted in accordance with paragraph (a) of this section.

(c)(1) Prior to installation aboard ship, diagrams of the following systems shall be submitted for approval:

- (i) Steam and exhaust piping.
- (ii) Boiler feed and blowoff piping.
- (iii) Safety valve escape piping.
- (iv) Fuel oil service, transfer and filling piping. (Service includes boiler fuel and internal combustion engine fuel piping.)
- (v) Fire extinguishing systems including fire main and sprinkler piping, inert gas and foam.
- (vi) Bilge and ballast piping.
- (vii) Tank cleaning piping.
- (viii) Condenser circulating water piping.

(ix) Vent, sound and overflow piping.

(x) Sanitary drains, soil drains, deck drains, and overboard discharge piping.

(xi) Internal combustion engine exhaust piping. (Refer to part 58 of this subchapter for requirements.)

(xii) Cargo piping.

(xiii) Hot water heating systems if the temperature is greater than 121 °C(250 °F).

(xiv) Compressed air piping.

(xv) Fluid power and control systems (hydraulic, pneumatic). (Refer to subpart 58.30 of this subchapter for specific requirements.)

(xvi) Lubricating oil piping.

(xvii) Refrigeration and air conditioning piping. (Refer to part 58 of this subchapter for specific requirements.)

(2) Arrangement drawings of the following systems shall also be submitted prior to installation:

(i) All Classes I, I-L, and II-L systems.

(ii) All Class II firemain, foam, sprinkler, bilge and ballast, vent sounding and overflow systems.

(iii) Other Class II systems only if specifically requested or required by regulations in this subchapter.

(d)(1) The drawings or diagrams shall include a list of material, furnishing pipe diameters, wall thicknesses, design pressure, fluid temperature, applicable ASTM material or ANSI component specification, type, size, design standard, and rating of valves, flanges, and fittings.

(2) Pump rated capacity and pump shutoff head shall appear on piping diagrams. Pump characteristic curves shall be submitted for all pumps in the