AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

[CGFR 68–82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9978, June 17, 1970; CGD 72–104R, 37 FR 14233, July 18, 1972; CGD 73–248, 39 FR 30839, Aug. 26, 1974; CGD 73–254, 40 FR 40165, Sept. 2, 1975; CGD 77–140, 54 FR 40612, Oct. 2, 1989; CGD 95–012, 60 FR 48050, Sept. 18, 1995; CGD 95–027, 61 FR 26001, May 23, 1996; CGD 95–028, 62 FR 51201, Sept. 30, 1997; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998; USCG–1999–5151, 64 FR 67180, Dec. 1, 1999; USCG–2003–16630, 73 FR 65182, Oct. 31, 2008]

§ 56.60–3 Ferrous materials.

(a) Ferrous pipe used for salt water service must be protected against corrosion by hotdip galvanizing or by the use of extra heavy schedule material.

(b) (Reproduces 124.2.C) Carbon or alloy steel having carbon content of more than 0.35 percent shall not be used in welded construction, nor be shaped by oxygen-cutting process or other thermal-cutting process.

[CGD 73–254, 40 FR 40165, Sept. 2, 1975, as amended by USCG–2003–16630, 73 FR 65183, Oct. 31, 2008]

§ 56.60–5 Steel (High temperature applications).

(a) (Reproduces 124.2.A.) Upon prolonged exposure to temperatures above 775 °F (412 °C), the carbide phase of plain carbon steel, plain nickel-alloy steel, carbon-manganese-alloy steel, manganese-vanadium-alloy steel, and carbon-silicon steel may convert to graphite.

(b) (Reproduces 124.2.B.) Upon prolonged exposure to temperatures above 875 °F (468 °C), the carbide phase of alloy steels, such as carbon-molybdenum, manganese-molybdenum-vanadium, manganese-chromium-vanadium, and chromium-vanadium, may convert to graphite.

(c) [Reserved]

(d) The design temperature of a piping system employing one or more of the materials listed in paragraphs (a), (b), and (c) of this section shall not exceed the lowest graphitization temperature specified for materials used.

[CGFR 68–82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9978, June 17, 1970; CGD 72–104R, 37 FR 14233, July 18, 1972; CGD 73–248, 39 FR 30839, Aug. 26, 1974; CGD 73–254, 40 FR 40165, Sept. 2, 1975; USCG–2003–16630, 73 FR 65183, Oct. 31, 2008]

§ 56.60–10 Cast iron and malleable iron.

(a) The low ductility of cast iron and malleable iron should be recognized and the use of these metals where shock loading may occur should be avoided. Cast iron and malleable iron components shall not be used at temperatures above 450 °F. Cast iron and malleable iron fittings conforming to the specifications of 46 CFR 56.60–1, Table 56.60–1(a) may be used at pressures not exceeding the limits of the applicable standards shown in that table at temperatures not exceeding 450 °F. Valves of either of these materials may be used if they conform to the standards for class 125 and class 250 flanges and flanged fittings in ASME B16.1 (incorporated by reference; see 46 CFR 56.01–2) and if their service does not exceed the rating as marked on the valve.

(b) Cast iron and malleable iron shall not be used for valves or fittings in lines carrying flammable or combustible fluids[1] which are directly connected to, or in the proximity of, equipment or other lines having open flame, or any parts operating at temperatures above 500 °F. Cast iron shall not be used for hull fittings, or in systems conducting lethal products.

(c) Malleable iron and cast iron valves and fittings, designed and marked for Class 300 refrigeration service, may be used for such service provided the pressure limitation of 300 pounds per square inch is not exceeded. Malleable iron flanges of this class may also be used in sizes 4 inches and smaller (oval and square design).

[CGFR 68–82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9978, June 17, 1970; CGD 73–254, 40 FR 40165, Sept. 2, 1975; CGD 77–140, 54 FR 40612, Oct. 2, 1989; CGD 95–027, 61 FR 26001, May 23, 1996; USCG–2003–16630, 73 FR 65183, Oct. 31, 2008]

§ 56.60–15 Ductile iron.

(a) Ductile cast iron components made of material conforming to ASTM A 395 (incorporated by reference, see 46 CFR 56.01–2) may be used within the

[1] For definitions of flammable or combustible fluids, see §§ 30.10–15 and 30.10–22 of subchapter D (Tank Vessels) of this chapter.