

§ 119.710

subpart and be otherwise acceptable to the cognizant OCMI.

§ 119.710 Piping for vital systems.

(a) Vital systems are those systems that are vital to a vessel's survivability and safety. For the purpose of this part the following are vital systems:

- (1) Fuel systems;
- (2) Fire main;
- (3) CO₂ and Halon systems;
- (4) Bilge system;
- (5) Steering system;
- (6) Propulsion system and its necessary auxiliaries and controls;
- (7) Ship's service and emergency electrical generation system and its necessary auxiliaries; and
- (8) A marine engineering system identified by the cognizant OCMI as being crucial to the survival of the vessel or to the protection of the personnel on board.

(b) For the purpose of this part, a system not identified in paragraph (a) of this section is a non-vital system.

(c) Piping used in a vital system must meet §56.60 in subchapter F of this chapter, except that §119.730 of this part replaces §56.60-20 in subchapter F of this chapter.

§ 119.715 Piping subject to more than 1,034 kPa (150 psig) in non-vital systems.

Piping subject to more than 1034 kPa (150 psig) in a non-vital system must be designed, fabricated, and inspected in accordance with the principles of American National Standards Institute (ANSI) B 31.1 "American National Standard Code for Pressure Piping, Power Piping," or other standard specified by the Commandant.

§ 119.720 Nonmetallic piping materials.

Nonmetallic piping materials, including nonmetallic flexible hose assemblies, must meet the requirements of §56.60-25 in subchapter F of this chapter.

§ 119.730 Nonferrous metallic piping materials.

(a) Nonferrous metallic piping materials are acceptable for use in the following:

- (1) Non-vital systems;

46 CFR Ch. I (10-1-10 Edition)

(2) Aluminum fuel piping on an aluminum hulled vessel, if at least Schedule 80;

(3) Aluminum bilge, ballast, and firemain piping on an aluminum hulled vessel;

(4) If acceptable to the cognizant OCMI, nonferrous metallic piping with a melting temperature above 927 °C (1,700 °F) may be used in vital systems that are deemed to be galvanically compatible; and

(5) Other uses specifically accepted by the cognizant OCMI.

(b) Where nonferrous metallic material is permitted for use in piping systems by this subpart, the restrictions in this paragraph apply:

(1) Provisions must be made to protect piping systems using aluminum alloys in high risk fire areas due to the low melting point of aluminum alloys;

(2) Provisions must be made to prevent or mitigate the effect of galvanic corrosion due to the relative solution potentials of copper, aluminum, and alloys of copper and aluminum, which are used in conjunction with each other, steel, or other metals and their alloys;

(3) A suitable thread compound must be used in making up threaded joints in aluminum pipe to prevent seizing. Pipe in the annealed temper must not be threaded;

(4) The use of aluminum alloys with a copper content exceeding 0.6 percent is prohibited; and

(5) The use of cast aluminum alloys in hydraulic fluid power systems must be in accordance with the requirements of §58.30-15(f) in subchapter F of this chapter.

PART 120—ELECTRICAL INSTALLATION

Subpart A—General Provisions

Sec.

120.100 Intent.

120.115 Applicability to existing vessels.

Subpart B—General Requirements

120.200 General design, installation, and maintenance requirements.

120.210 Protection from wet and corrosive environments.

120.220 General safety provisions.