

§ 120.220

(b) Electrical equipment exposed to the weather must be watertight.

(c) Electrical equipment exposed to corrosive environments must be of suitable construction and corrosion-resistant.

§ 120.220 General safety provisions.

(a) Electrical equipment and installations must be suitable for the roll, pitch, and vibration of the vessel underway.

(b) All equipment, including switches, fuses, lampholders, etc., must be suitable for the voltage and current utilized.

(c) Receptacle outlets of the type providing a grounded pole or a specific direct current polarity must be of a configuration that will not permit improper connection.

(d) All electrical equipment and circuits must be clearly marked and identified.

(e) Any cabinet, panel, box, or other enclosure containing more than one source of power must be fitted with a sign warning persons of this condition and identifying the circuits to be disconnected.

Subpart C—Power Sources and Distribution Systems

§ 120.310 Power sources.

(a)(1) Each vessel that relies on electricity to power the following loads must be arranged so that the loads can be energized from two sources of electricity:

(i) The vital systems listed in § 119.710 of this chapter;

(ii) Interior lighting except for decorative lights;

(iii) Communication systems including a public address system required under § 121.610 of this chapter; and

(iv) Navigation equipment and lights.

(2) Except as provided in § 120.312 of this part, a vessel with batteries of adequate capacity to supply the loads specified in paragraph (a)(1) of this section for three hours, and a generator or alternator driven by a propulsion engine, complies with the requirement in paragraph (a)(1) of this section.

(b) Where a ship service generator driven by a propulsion engine is used as a source of electrical power, a vessel

46 CFR Ch. I (10–1–10 Edition)

speed change, throttle movement or change in direction of the propeller shaft rotation must not interrupt power to any of the loads specified in paragraph (a)(1) of this section.

§ 120.312 Power sources on vessels of more than 19.8 meters (65 feet) in length carrying more than 600 passengers or with overnight accommodations for more than 49 passengers.

A vessel of more than 19.8 meters (65 feet) in length carrying more than 600 passengers or with overnight accommodations for more than 49 passengers must have:

(a) Two generator sets;

(b) An electrical power system that complies with the requirements of §§ 111.10–4, 111.10–5, 111.10–9, 111.10–11 in subchapter J of this chapter;

(c) A final emergency power source, as defined by § 112.01–20 in subchapter J of this chapter, with sufficient capacity to power the loads listed in § 112.15–5 in subchapter J of this chapter for three hours; and

(d) The final emergency power source located outside the machinery space.

[CGD 85–080, 61 FR 928, Jan. 10, 1996, as amended at 62 FR 51352, Sept. 30, 1997]

§ 120.320 Generators and motors.

(a) Each generator and motor must be:

(1) In a location that is accessible, adequately ventilated, and as dry as practicable; and

(2) Mounted above the bilges to avoid damage by splash and to avoid contact with low lying vapors.

(b) Each generator and motor must be designed for an ambient temperature of 50 °C (122 °F) except that:

(1) If the ambient temperature in the space where a generator or motor will be located will not exceed 40 °C (104 °F) under normal operating conditions, the generator or motor may be designed for an ambient temperature of 40 °C (104 °F); and

(2) A generator or motor designed for 40 °C (104 °F) may be used in 50 °C (122 °F) ambient locations provided the generator or motor is derated to 80 percent of the full load rating, and the rating or setting of the overcurrent devices is reduced accordingly.