PART 129—ELECTRICAL INSTALLATIONS

Subpart A—General Provisions

Sec.
129.100 General.
129.110 Applicability.
129.120 Alternative standards.

Subpart B—General Requirements

129.200 Design, installation, and maintenance.
129.210 Protection from wet and corrosive environments.
129.220 Basic safety.

Subpart C—Power Sources and Distribution Systems

129.310 Power sources.
129.315 Power sources for OSVs.
129.320 Generators and motors.
129.323 Multiple generators.
129.326 Dual-voltage generators.
129.330 Distribution panels and switchboards.
129.340 Cable and wiring.
129.350 Batteries—general.
129.353 Battery categories.
129.356 Battery installations.
129.360 Semiconductor-rectifier systems.
129.370 Equipment grounding.
129.375 System grounding.
129.380 Overcurrent protection.
129.390 Shore power.
129.395 Radio installations.

Subpart D—Lighting Systems

129.410 Lighting fixtures.
129.420 Branch circuits for lighting on OSVs.
129.430 Navigational lighting.
129.440 Emergency lighting.
129.450 Portable lighting.

Subpart E—Miscellaneous Electrical Systems

129.510 Lifeboat winches.
129.520 Hazardous areas.
129.530 General alarm.
129.540 Remote stopping-systems on OSVs.
129.550 Power for cooking and heating.
129.560 Engine-order telegraphs.
129.570 Overfill protection.


SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49332, Sept. 19, 1997, unless otherwise noted.
(d) Prevent electrical ignition of flammable vapors.

§ 129.210 Protection from wet and corrosive environments.  
(a) Electrical equipment used in the following spaces must be drip-proof:  
(1) A machinery space.  
(2) A space normally exposed to splashing, water wash-down, or other wet conditions within a galley, a laundry, or a public washroom or toilet room that has a bath or shower.  
(3) Every other space with similar wet conditions.  
(b) Electrical equipment exposed to the weather must be watertight.  
(c) Electrical equipment exposed to corrosive environments must be of suitable construction and must be resistant to corrosion.

§ 129.220 Basic safety.  
(a) Electrical equipment and installations must be suitable for the roll, pitch, and vibration of the vessel under way.  
(b) All equipment, including switches, fuses, and lampholders, must be suitable for the voltage and current used.  
(c) Receptacle outlets of the type providing a grounded pole or a specific direct-current polarity must be of a configuration that does not permit improper connection.  
(d) 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

§ 129.310 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 at least two sources of electricity:  
(i) Any system identified as a vital system in §128.130(a) of this subchapter.  
(ii) Interior lights.  
(iii) Communication systems.  
(iv) Navigational equipment and lights.  
(v) Fire-protection equipment.  
(2) A vessel with batteries of enough capacity for 3 hours of continuous operation to supply the loads specified in paragraph (a)(1) of this section, and with a generator or alternator driven by a propulsion engine, complies with paragraph (a)(1) of this section.  
(b) Where a generator driven by a propulsion engine is used as a source of electrical power, no speed change, throttle movement, or change in direction of the propeller shaft of the vessel may interrupt power to any of the loads specified in paragraph (a)(1) of this section.

§ 129.315 Power sources for OSVs.  
(a) The requirements of this section apply to OSVs between 100 GRT and 500 GRT or less than 6,000 GT ITC instead of those in subpart 111.10 of this chapter.  
(b) If a generator provides electrical power for any system identified as a vital system by §128.130(a) of this subchapter, at least two power-generating sets must be provided. At least one set must be independent of the main propulsion plant. A generator not independent of the main propulsion plant must comply with §111.10–4(d) of this chapter. With any one generating set stopped, the remaining set or sets must provide the power necessary for the loads required by this section.  


§ 129.320 Generators and motors.  
(a) Each generator and motor, except a submersible-pump motor, must be—  
(1) In an accessible space, 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 is, does not exceed 40 °C (104 °F) under normal operating conditions, the generator or motor may be designed for an