

§ 112.43-11

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§ 112.43-11 Illumination for launching operations.

Branch circuits supplying power to lights for survival craft launching operations must supply no other equipment and meet § 111.75-16 of this chapter.

[CGD 94-108, 61 FR 28287, June 4, 1996]

§ 112.43-13 Navigation light indicator panel supply.

Each navigation light indicator panel must be supplied:

(a) Directly from the emergency switchboard; or

(b) Be a through feed, without switch or overcurrent protection, from the feeder supply the navigating bridge emergency lighting panel.

[CGD 74-125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28287, June 4, 1996]

§ 112.43-15 Emergency lighting feeders.

For a vessel with fire bulkheads forming fire zones, at least one emergency lighting feeder must supply only the emergency lights between two adjacent main vertical fire zone bulkheads. The emergency lighting feeder must be separated as widely as practicable from any general lighting feeder supplying the same space.

[CGD 74-125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28287, June 4, 1996]

Subpart 112.45—Visible Indicators

§ 112.45-1 Visible indicators.

There must be visible indicators in the machinery space to show:

(a) When an emergency battery is discharging; and

(b) When the automatically controlled emergency power source is supplying the emergency loads.

Subpart 112.50—Emergency Diesel and Gas Turbine Engine Driven Generator Sets

§ 112.50-1 General.

(a) The prime mover of a generator set must have:

(1) All accessories necessary for operation and protection of the prime mover; and

(2) A self-contained cooling system of a size that ensures continuous operation with 100 degrees F (37 degrees C) air.

(b) The fuel used must have a flashpoint of not less than 110 degrees F (43 degrees C).

(c) The room that has the generator set must have intake and exhaust ducts to supply adequate cooling air.

(d) The generator set must be capable of carrying its full rated load within 45 seconds after cranking is started with the intake air, room ambient temperature, and starting equipment at 0°C. The generator's prime mover must not have a starting aid to meet this requirement, except that a thermostatically-controlled electric water-jacket heater connected to the final emergency bus is permitted.

(e) The generator set must start by hydraulic, compressed air, or electrical means.

(f) The generator set must maintain proper lubrication when inclined to the angles specified in § 112.05-5(c), and must be arranged so that it does not spill oil under a vessel roll of 30 degrees to each side of the vertical.

(g) The generator set must shut down automatically upon loss of lubricating oil pressure, overspeed, or operation of a fixed fire extinguishing system in the emergency generator room (see § 111.12-1(b) for detailed overspeed trip requirements).

(h) If the prime mover is a diesel engine, there must be an audible alarm that sounds on low oil pressure and high cooling water temperature.

(i) If the prime mover is a gas turbine, it must meet the shutdown and alarm requirements in § 58.10-15(g) of this chapter.

(j) An independent fuel supply must be provided for the prime mover.

(k) Each emergency generator that is arranged to be automatically started must be equipped with a starting device with an energy-storage capability of at least six consecutive starts. A second, separate source of starting energy may provide three of the required

six starts. If a second source is provided, the system need only provide three consecutive starts.

[CGD 74-125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28287, June 4, 1996]

§ 112.50-3 Hydraulic starting.

A hydraulic starting system must meet the following:

(a) The hydraulic starting system must be a self-contained system that provides the cranking torque and engine starting RPM recommended by the engine manufacturer. The hydraulic starting system must be capable of six consecutive starts, unless a second, separate source of starting energy capable of three consecutive starts is provided. A second, separate source of starting energy may provide three of the required six starts. If a second source is provided, the hydraulic system need only provide three consecutive starts.

(b) The stored hydraulic pressure must be automatically maintained within the predetermined pressure limits.

(c) The means of automatically maintaining the hydraulic system within the predetermined pressure limits must be electrically energized from the final emergency bus.

(d) There must be a means to manually recharge the hydraulic system.

(e) Charging of the hydraulic starting system must not cause insufficient hydraulic pressure for engine starting.

[CGD 74-125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28287, June 4, 1996]

§ 112.50-5 Electric starting.

An electric starting system must have a starting battery with sufficient capacity for at least six consecutive starts. A second, separate source of starting energy may provide three of the required six starts. If a second source is provided, the electrical starting system need only provide three consecutive starts.

[CGD 94-108, 61 FR 28288, June 4, 1996]

§ 112.50-7 Compressed air starting.

A compressed air starting system must meet the following:

(a) The starting, charging, and energy storing devices must be in the emergency generator room, except for the main or auxiliary air compressors addressed in paragraph (c)(3)(i) of this section.

(b) The compressed air starting system must provide the cranking torque and engine starting RPM recommended by the engine manufacturer.

(c) The compressed air starting system must have an air receiver that meets the following:

(1) Has a capacity for at least six consecutive starts. A second, separate source of starting energy may provide three of the required consecutive starts. If a second source is provided, the compressed air starting system need only provide three consecutive starts.

(2) Supplies no other system.

(3) Is supplied from one of the following:

(i) The main or auxiliary compressed air receivers with a nonreturn valve in the emergency generator room and a handcranked, diesel-powered air compressor for recharging the air receiver.

(ii) An electrically driven air compressor that is automatically operated and is powered from the emergency power source. If this compressor supplies other auxiliaries, there must be a non-return valve at the inlet of the starting air receiver and there must be a handcranked, diesel-powered air compressor for recharging the air receiver.

[CGD 74-125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28288, June 4, 1996]

Subpart 112.55—Storage Battery Installation

§ 112.55-1 General.

Each storage battery installation must meet Subpart 111.15 of this chapter.

§ 112.55-5 Emergency lighting loads.

When supplying emergency lighting loads, the storage battery initial voltage must not exceed the standard system voltage by more than 5 percent.