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when the trim of the ship is 10 degrees, either in the fore or aft direction, or is in any combination of angles within those limits.

(d) The emergency power source, its associated transforming equipment, and the emergency switchboard must be located aft of the collision bulkhead, outside of the machinery casing, and above the uppermost continuous deck. Each compartment containing this equipment must be readily accessible from the open deck and must not contain machinery not associated with, or equipment not in support of, the normal operation of the emergency power source. Equipment in support of the normal operation of the emergency power source includes, but is not limited to, ventilation fans, CO_2 bottles, space heaters, and internal communication devices, such as sound powered phones.

(e) No compartment that has an emergency power source or its vital components may adjoin a Category A machinery space or those spaces containing the main source of electrical power and its vital components.

(f) Except for a cable for connecting equipment in the engineroom or boilerroom, no cable supplied from the emergency switchboard may penetrate the boundaries of the engineroom, boilerroom, uptakes, or casings of these spaces. These cables must be kept clear of the bulkheads and decks forming these boundaries. No emergency circuit in an engineroom or a boilerroom may supply equipment in any other space.

(g) The emergency switchboard must be as near as practicable to the emergency power source but not in the same space as a battery emergency power source.

(h) If the emergency power source is a generator, the emergency switchboard must be in the same space as the emergency power source.

(i) The prime mover of an emergency generator must be either a diesel engine or a gas turbine.

[CGD 74–125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94–108, 61 FR 28286, June 4, 1996; 62 FR 23910, May 1, 1997]

Subpart 112.15—Emergency Loads

§ 112.15–1 Temporary emergency loads.

On vessels required by § 112.05–5(a) to have a temporary emergency power source, the following emergency lighting and power loads must be arranged so that they can be energized from the temporary emergency power source:

(a) Navigation lights.

(b) Enough lights throughout machinery spaces to allow essential operations and observations under emergency conditions and to allow restoration of service.

(c) Lighting, including low location lighting if installed, for passageways, stairways, and escape trunks in passenger quarters, crew quarters, public spaces, machinery spaces, damage control lockers, emergency equipment lockers, and work spaces sufficient to allow passengers and crew to find their way to open decks and to survival craft, muster stations, and embarkation stations with all watertight doors and fire doors closed.

(d) Illuminated signs with the word ''EXIT'' in red letters throughout a passenger vessel so the direction of escape to the open deck is obvious from any portion of the vessel usually accessible to the passengers or crew, except machinery spaces, and except stores and similar spaces where the crew are not normally employed. There must be sufficient signs so that the direction of escape is obvious, with all fire doors in stairway enclosures and main vertical zone bulkheads closed and all watertight doors closed. For the purpose of this paragraph, an individual stateroom or other similar small room is not required to have a sign, but the direction of escape must be obvious to a person emerging from the room.

(e) Illumination to allow safe operation of each power operated watertight door.

(f) At least one light in each space where a person may be maintaining, repairing, or operating equipment, stowing or drawing stores or equipment, or transiting, such as public spaces, work spaces, machinery spaces, workshops, galleys, emergency fire pumprooms, bow thruster rooms, storage areas for

paint, rope, and other stores, underdeck passageways in cargo areas, steering gear rooms, windlass rooms, normally accessible duct keels with valve operators, cargo handling rooms, and holds of roll-on/roll-off vessels.

(g) Lighting for survival craft launching, including muster stations, embarkation stations, the survival craft, its launching appliances and the area of the water where it is to be launched.

(h) Electric communication systems that are necessary under temporary emergency conditions and that do not have an independent storage battery source of power.

(i) Each power operated watertight door system.

(j) All shipwide communications systems necessary for the transmittal of information during an emergency.

(k) Each fire door holding and release system.

(l) Supply to motor generator or other conversion equipment if a temporary emergency power source of alternating current is necessary for essential communication systems or emergency equipment.

(m) Each daylight signaling light.

(n) Each smoke detector system.

(o) Each electrically controlled or powered ship's whistle.

(p) Each fire detection system; and gas detection system if installed.

(q) All lighting relative to helicopter operations and landing if installed, unless provided for by another source of power (such as independent batteries separately charged by solar cells).

(r) Each general emergency alarm system required by IMO SOLAS 74 (incorporated by reference; see 46 CFR 110.10–1).

[CGD 74–125A, 47 FR 15267, Apr. 8, 1982, as amended by CGD 94–108, 61 FR 28286, June 4, 1996; USCG–2003–16630, 73 FR 65201, Oct. 31, 2008]

§ 112.15–5 Final emergency loads.

On vessels required to have a final emergency power source by § 112.05–5(a) of this chapter, the following emergency lighting and power loads must be arranged so that they can be energized from the final emergency power source:

(a) Each load under § 112.15–1.

(b) The machinery, controls, and alarms for each passenger elevator.

(c) Each charging panel for:

(1) Temporary emergency batteries;

(2) Starting batteries for diesel engines or gas turbines that drive emergency generators; and

(3) General alarm batteries.

(d) One of the bilge pumps, if the emergency power source is its source of power to meet Part 56 of this chapter.

(e) One of the fire pumps, if the emergency power source is its source of power to meet the requirements of the subchapter under which the vessel is certificated.

(f) Each sprinkler system, water spray extinguishing system, or foam system pump.

(g) If necessary, the lube oil pump for each propulsion turbine and reduction gear, propulsion diesel reduction gear, and ship's service generator turbine which needs external lubrication.

(h) Each rudder angle indicator.

(i) Each radio or global maritime distress and safety system (GMDSS) component.

(j) Each radio direction finder, radar, gyrocompass, depth sounder, global positioning system (GPS), satellite navigation system (SATNAV), speed log, rate-of-turn indicator and propeller pitch indicator.

(k) Each steering gear feeder, if required by part 58, subpart 58.25, of this chapter.

(l) Each general emergency alarm flashing light required by § 113.25–10 of this chapter.

(m) Each electric blow-out-preventer control system.

(n) Any permanently installed diving equipment that is dependent upon the vessel's or drilling unit's power.

(o) Each emergency generator starting compressor, as allowed by § 112.50–7(c)(3)(ii).

(p) Each steering gear failure alarm required by part 113, subpart 113.43, of this chapter.

(q) The ballast control system on each column-stabilized mobile offshore drilling unit.

(r) Each vital system automation load required by part 62 of this chapter.

(s) Motor-operated valves for each cargo oil and fuel oil system, if the emergency power source is the source