Coast Guard, DHS § 111.40–3

**Subpart 111.40—Panelboards**

§ 111.40–1  Panelboard standard.
Each panelboard must meet section 17.1 of IEEE 45–2002 (incorporated by reference; see 46 CFR 110.10–1).

§ 111.40–5 Enclosure.
Each panelboard must have a non-combustible enclosure that meets §§ 111.01–7 and 111.01–9.
[CGD 94–108, 61 FR 28279, June 4, 1996]

§ 111.40–7 Location.
Each panelboard must be accessible but not in a bunker or a cargo hold, except a cargo hold on a roll-on/roll-off vessel.
[CGD 94–108, 61 FR 28279, June 4, 1996]

§ 111.40–9 Locking device.
The door of each panelboard enclosure that is accessible to any passenger must have a locking device.

§ 111.40–11 Numbered switching unit and panelboard directory.
(a) Each panelboard switching unit must be numbered.
(b) Each panelboard must have:
   (1) A circuit directory cardholder; and
   (2) A circuit directory that has:
      (i) The circuit designation of each circuit;
      (ii) A description of the load of each circuit; and
      (iii) The rating or setting of the overcurrent protective device for each circuit.

§ 111.40–13 Rating.
Each panelboard must have a current rating not less than the feeder circuit capacity.

§ 111.40–15 Overcurrent device.
The total load on any overcurrent device located in a panelboard must not exceed 80 percent of its rating if, in normal operation, the load will continue for 3 hours or more; except if the assembly, including the overcurrent device, is rated for continuous duty at 100% of its rating.

§ 111.40–5 Enclosure.
Each panelboard must have a non-combustible enclosure that meets §§ 111.01–7 and 111.01–9.
[CGD 94–108, 61 FR 28279, June 4, 1996]

§ 111.40–7 Location.
Each panelboard must be accessible but not in a bunker or a cargo hold, except a cargo hold on a roll-on/roll-off vessel.
[CGD 94–108, 61 FR 28279, June 4, 1996]

§ 111.50–1 Protection of equipment.
Overcurrent protection of electric equipment must meet the following listed subparts of this chapter:
(a) Appliances, Subpart 111.77.
(b) Generators, Subpart 111.12.
(c) Motors, motor circuits, and controllers, Subpart 111.70.
(d) Transformers, Subpart 111.20.

§ 111.50–2 Systems integration.
The electrical characteristics of each overcurrent protective device must be compatible with other devices and its coordination must be considered in the design of the entire protective system.

**Subpart 111.50—Overcurrent Protection**

§ 111.50–3 Protection of conductors.
(a) Purpose. The purpose of overcurrent protection for conductors is to open the electric circuit if the current reaches a value that will cause an excessive or dangerous temperature in the conductor or conductor insulation. A grounded conductor is protected from overcurrent if a protective device of a suitable rating or setting is in each ungrounded conductor of the same circuit.

(b) Overcurrent protection of conductors. Each conductor must be protected in accordance with its current carrying capacity, except a conductor for the following circuits which must meet the following listed subparts of this chapter:
(1) Propulsion circuits, Subpart 111.35.
(2) Steering circuits, subchapter F of this chapter.
(3) Motor circuits, Subpart 111.70.
(4) Flexible cord and fixture wire for lighting circuits, Subpart 111.75.
(5) Switchboard circuits, Subpart 111.30.
(c) Fuses and circuitbreakers. If the allowable current-carrying capacity of the conductor does not correspond to a
§ 111.50–5 Location of overcurrent protective devices.

(a) Location in circuit. Overcurrent devices must be at the point where the conductor to be protected receives its supply, except as follows:

(1) The generator overcurrent protective device must be on the ship’s service generator switchboard. (See §111.12–11(g) for additional requirements.)

(2) The overcurrent protection for the shore connection conductors must meet §111.30–25.

(b) Location on vessel. Each overcurrent device:

(i) Must be:

(ii) In a distribution panelboard, switchboard, motor controller, or similar enclosure; and

(ii) Near an easily ignitable material or where explosive gas or vapor may accumulate.

§ 111.50–7 Enclosures.

(a) Each enclosure of an overcurrent protective device must meet Sections 240–30 and 240–33 of NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1).

(b) No enclosure may be exposed to the weather unless accepted by the Commandant.

§ 111.50–9 Disconnecting and guarding.

Disconnecting and guarding of overcurrent protective devices must meet Part IV of Article 240 of NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1).