

(1) The purpose of the cable is to supply equipment or instruments especially designed for and compatible with service in the tank and whose function requires the installation of the cable in the tank;

(2) The cable is either compatible with the liquid or gas in the tank or protected by an enclosure; and

(3) Neither braided cable armor nor cable metallic sheath is used as the grounding conductor.

(d) Braided cable armor or cable metallic sheath must not be used as the grounding conductor.

[CGD 74-125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28280, June 4, 1996; USCG-2003-16630, 73 FR 65198, Oct. 31, 2008]

**§ 111.60-6 Fiber optic cable.**

Each fiber optic cable must—

(a) Be constructed to pass the flammability test contained in IEEE 1202, test VW-1 of UL 1581, or Category A of IEC 60332-3-22 (all three standards incorporated by reference; see 46 CFR 110.10-1); or

(b) Be installed in accordance with § 111.60-2.

[CGD 94-108, 61 FR 28280, June 4, 1996, as amended by USCG-2003-16630, 73 FR 65198, Oct. 31, 2008]

**§ 111.60-7 Demand loads.**

Generator, feeder, and bus-tie cables must be selected on the basis of a computed load of not less than the demand load given in Table 111.60-7.

TABLE 111.60-7—DEMAND LOADS

Type of circuit	Demand load
Generator cables .....	115 percent of continuous generator rating.
Switchboard bus-tie, except ship's service to emergency switchboard bus-tie.	75 percent of generating capacity of the larger switchboard.
Emergency switchboard bus-tie .....	115 percent of continuous rating of emergency generator.
Motor feeders .....	Article 430, NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10-1).
Galley equipment feeder .....	100 percent of either the first 50 KW or one-half the connected load, whichever is the larger, plus 65 percent of the remaining connected load, plus 50 percent of the rating of the spare switches or circuit breakers on the distribution panel.
Lighting feeder .....	100 percent of the connected load plus the average active circuit load for the spare switches or circuit breakers on the distribution panels.
Grounded neutral of a dual voltage feeder .....	100 percent of the capacity of the ungrounded conductors when grounded neutral is not protected by a circuit breaker overcurrent trip, or not less than 50 percent of the capacity of the ungrounded conductors when the grounded neutral is protected by a circuit breaker overcurrent trip or overcurrent alarm.

[CGD 74-125A, 47 FR 15236, Apr. 8, 1982, as amended by USCG-2004-18884, 69 FR 58348, Sept. 30, 2004; USCG-2003-16630, 73 FR 65198, Oct. 31, 2008]

**§ 111.60-9 Segregation of vital circuits.**

(a) *General.* A branch circuit that supplies equipment vital to the propulsion, control, or safety of the vessel must not supply any other equipment.

(b) *Passenger vessels.* (1) Each passenger vessel with firescreen bulkheads that form main fire zones must have distribution systems arranged so that fire in a main fire zone does not inter-

fere with essential services in another main fire zone.

(2) Main and emergency feeders passing through a main fire zone must be separated vertically and horizontally as much as practicable.

**§ 111.60-11 Wire.**

(a) Wire must be in an enclosure.

(b) Wire must be component insulated.

(c) Wire, other than in switchboards, must meet the requirements in sections 24.6.7 and 24.8 of IEEE 45-2002, NPFC MIL-W-76D, UL 44, UL 83 (all