

**§ 111.60-3**

- (2) At least every 15 meters (46 feet) horizontally;
- (3) At each penetration of an A or B Class boundary;
- (4) At each location where the cable enters equipment; or
- (5) In a cableway that has an A-60 fire rating.

[CGD 94-108, 61 FR 28280, June 4, 1996]

**§ 111.60-3 Cable application.**

(a) Cable constructed according to IEEE Std 45 must meet the cable application provisions of section 19 of IEEE Std 45. Cable constructed according to IEC 92-3, IEC 92-353, or UL 1309 must meet the provisions of section 19 of IEEE Std 45, except 19.6.1, 19.6.4, and 19.8. Cable constructed according to IEC 92-3 and IEC 92-353 must comply with the ampacity values of IEC 92-352, Table 1.

(b) Type T/N cables must meet section 19 of IEEE Std 45 for Type T insulation.

(c) Cable constructed according to IEEE Std 45 must be derated according to Table A6, Note 6, of IEEE Std 45. Cable constructed according to IEC 92-3 or IEC 92-353 must be derated according to IEC 92-352, paragraph 8. MIL-C-24640A and MIL-C-24643A cable must be derated according to MIL-HDBK-299(SH).

(d) Cables for special applications defined in section 19 of IEEE Std 45 must meet the provisions of that section.

[CGD 94-108, 61 FR 28280, June 4, 1996, as amended at 62 FR 23908, May 1, 1997; USCG-1999-6096, 66 FR 29911, June 4, 2001]

**§ 111.60-4 Minimum cable conductor size.**

Each cable conductor must be #18 AWG (0.82 mm<sup>2</sup>) or larger except—

- (a) Each power and lighting cable conductor must be #14 AWG (2.10 mm<sup>2</sup>) or larger; and

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- (b) Each thermocouple, pyrometer, or instrumentation cable conductor must be #22 AWG (0.33 mm<sup>2</sup>) or larger.

[CGD 94-108, 61 FR 28280, June 4, 1996]

**§ 111.60-5 Cable installation.**

(a) Each cable installation must meet—

- (1) Sections 20 and 22, except 20.11, of IEEE Std 45; or

- (2) IEC 92-3 and paragraph 8 of IEC 92-352.

(b) Each cable installation made in accordance with paragraph 8 of IEC 92-352 must utilize the conductor ampacity values of Table I of IEC 92-352.

(c) Cable must not be located in any tanks except to supply equipment or instrumentation specially designed for and compatible with such location and whose function require its installation in the tank. The cable must be compatible with the liquid or gas in the tank or be protected by an enclosure.

(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]

**§ 111.60-6 Fiber optic cable.**

Each fiber optic cable must—

- (a) Be constructed to pass the flammability test contained in IEEE Std 45, IEEE Std 1202, ANSI/UL 1581 test VW-1, or IEC 332-3 Category A; or

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

[CGD 94-108, 61 FR 28280, June 4, 1996]

**§ 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, National Electrical Code.