

**§ 111.60-17**

**46 CFR Ch. I (10-1-06 Edition)**

**§ 111.60-17 Connections and terminations.**

(a) In general, connections and terminations to all conductors must retain the original electrical, mechanical, flame-retarding, and, where necessary, fire-resisting properties of the cable. All connecting devices must be suitable for copper stranded conductors.

(b) If twist-on type of connectors are used, the connections must be made within an enclosure and the insulated cap of the connector must be secured to prevent loosening due to vibration.

(c) Twist-on type of connectors may not be used for making joints in cables, facilitating a conductor splice, or extending the length of a circuit.

[CGD 94-108, 61 FR 28281, June 4, 1996]

**§ 111.60-19 Cable splices.**

(a) A cable must not be spliced in a hazardous location, except in intrinsically safe systems.

(b) Each cable splice must be made in accordance with section 20.11 of IEEE Std 45.

[CGD 94-108, 61 FR 28281, June 4, 1996]

**§ 111.60-21 Cable insulation tests.**

All electric power and lighting cable and associated equipment must be checked for proper insulation resistance to ground and between conductors. The insulation resistance must not be less than that in section 46.2.1 of IEEE Std 45.

[CGD 74-125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94-108, 61 FR 28281, June 4, 1996]

**§ 111.60-23 Metal-clad (Type MC) cable.**

(a) Metal-clad (Type MC) cable permitted on board a vessel must be continuous corrugated metal-clad cable.

(b) The cable must—

(1) Have a corrugated gas-tight, vapor-tight, and watertight sheath of aluminum or other suitable metal that is close-fitting around the conductors and fillers and that has an overall jacket of an impervious PVC or thermoset material; and

(2) Be certified or listed by an independent laboratory as meeting the requirements of UL 1569.

(c) The cable is not allowed in areas or applications exposed to high vibration, festooning, repeated flexing, excessive movement, or twisting, such as in engine rooms, on elevators, or in the area of drill floors, draw works, shakers, and mud pits.

(d) The cable must be installed in accordance with article 334 of the NEC. The ampacity values found in table A6 of IEEE Std 45 may not be used.

(e) The side wall pressure on the cable must not exceed 1,000 pounds per foot of radius.

(f) Equipment grounding conductors in the cable must be sized in accordance with article 250-95 of the NEC. System grounding conductors must be of a cross-sectional area not less than that of the normal current carrying conductors of the cable. The metal sheath must be grounded but must not be used as a required grounding conductor.

(g) On an offshore floating drilling and production facility, the cable may be used as interconnect cable between production modules and between fixed distribution panels within the production modules, except that interconnection between production and temporary drilling packages is prohibited. Also, the cable may be used within columns, provided that the columns are not subject to the conditions described in paragraph (c) of this section.

(h) When the cable is used within a hazardous (classified) location, terminations or fittings must be listed, and must be appropriate, for the particular Type MC cable used and for the environment in which they are installed.

[CGD 94-108, 62 FR 23908, May 1, 1997]

**Subpart 111.70—Motor Circuits, Controllers, and Protection**

**§ 111.70-1 General.**

(a) Each motor circuit, controller, and protection must meet the requirements of ABS Rules for Building and Classing Steel Vessels, sections 4/5A5.13, 4/5B2.13, 4/5B2.15, and 4/5C4; ABS Rules for Building and Classing Mobile Offshore Drilling Units, sections 4/3.87 through 4/3.94 and 4/3.115.6; or IEC 92-301, as appropriate, except the following circuits: