

NFPA 70® -2017 Edition
National Electrical Code®
TIA Log No.: 1282

Reference: 700.10(D)(1)(3)

Comment Closing Date: September 14, 2017

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1. Revise 700.10(D)(1)(3) to read as follows:

700.10 Wiring, Emergency System.

(D) Fire Protection. Emergency systems shall meet the additional requirements in (D)(1) through (D)(3) in the following occupancies:

- (1) Assembly occupancies for not less than 1000 persons
- (2) Buildings above 23 m (75 ft) in height
- (3) Health care occupancies where persons are not capable of self preservation
- (4) Educational occupancies with more than 300 occupants

(1) Feeder-Circuit Wiring. Feeder-circuit wiring shall meet one of the following conditions:

- (1) The cable or raceway is installed in spaces or areas that are fully protected by an approved automatic fire suppression system.
- (2) The cable or raceway is protected by a listed electrical circuit protective system with a minimum 2-hour fire rating.

Informational Note No. 1: Electrical circuit protective systems could include but not be limited to thermal barriers or a protective shaft and are tested to UL 1724, *Fire Tests for Electrical Circuit Protection Systems*.

Informational Note No. 2: The listing organization provides information for electrical circuit protective systems on proper installation requirements to maintain the fire rating.

- (3) The cable or raceway is a listed fire-resistive cable system with a minimum 2-hour fire rating.

Informational Note No. 1: Fire-resistive cables are tested to ANSI/UL 2196, *Tests for Fire Resistive Cables*.

Informational Note No. 2: The listing organization provides information for fire-resistive cable systems on proper installation requirements to maintain the fire rating.

- (4) The cable or raceway is protected by a listed fire-rated assembly that has a minimum fire rating of 2 hours and contains only emergency circuits.
- (5) The cable or raceway is encased in a minimum of 50 mm (2 in.) of concrete.

Substantiation: Article 700.10 (D) was revised in the 2017 cycle in an effort to make the Article more user friendly. However, paragraph 700.10 (D)(1)(3) of the final version is missing a key safety driven component discussed during both the First and Second Draft meetings; i.e. the requirement that a listed fire-resistance cable system is *rated for 2 hours*. This 2-hour fire rating is a critical part of the requirement and was inadvertently missed by the Technical Committee.

Note that this language is similar in Articles 695 and 708:

In Article 695.6, the similar language is found in paragraphs (A)(2)(d)(1) thru (A)(2)(d)(3), however, the parent paragraph, 695.6 (A)(2)(d), includes the qualifier “protected from fire for 2 hours”.

In Article 708, the similar language is found in paragraph 708.10(C)(2).

The proposed TIA seeks to amend paragraph 700.10 (D)(1)(3) to be identical to 708.10(C)(2)(2).

Emergency Nature: The standard contains an error or an omission that was overlooked during the regular revision process.

Many wiring products have a listed fire resistance rating, but not all have a 2-hour fire resistance rating. As written, 700.10 (D)(1)(3) permits a cable with any listed fire resistance rating. This proposed TIA seeks to restore the minimum 2-hour fire rating originally intended.

Anyone may submit a comment by the closing date indicated above. To submit a comment, please identify the number of the TIA and forward to the [Secretary, Standards Council](#), 1 Batterymarch Park, Quincy, MA 02169-7471.