

# Changes to NFPA 70-2008, *National Electrical Code*® Article 760 and articles referenced by article 760

(Strike-through text is ~~deleted~~ and underlined text is new.)

## NFPA 70-2008<sup>1</sup> 760.3 Other Articles.

**(G) Installation of Conductors with Other Systems.** Installations shall comply with 300.8.

**300.8 Installation of Conductors with Other Systems.** Raceways or cable trays containing electric conductors shall not contain any pipe, tube, or equal for steam, water, air, gas, drainage, or any service other than electrical.

~~**760.9 Fire Alarm Circuit and Equipment Grounding.** Fire alarm circuits and equipment shall be grounded in accordance with Article 250.760.6.~~

**760.25 Abandoned Cables.** The accessible portion of abandoned fire alarm cables shall be removed. Where cables are identified for future use with a tag, the tag shall be of sufficient durability to withstand the environment involved.

**760.30 Fire Alarm Circuit Identification.** Fire alarm circuits shall be identified at terminal and junction locations in a manner that helps to ~~will~~ prevent unintentional signals on fire alarm system circuit(s) ~~interference with the signaling circuit~~ during testing and servicing of other systems.

## **760.41 NPLFA Circuit Power Source Requirements.**

**(A) Power Source.** The power source of non-power-limited fire alarm circuits shall comply with Chapters 1 through 4, and the output voltage shall not be more than 600 volts, nominal.

**(B) Branch Circuit.** An individual branch circuit shall be required for the supply of the power source. This branch circuit shall not be supplied through ground-fault circuit interrupters or arc-fault circuit interrupters.

FPN: See 210.8(A)(5), Exception No. 3, for receptacles in dwelling-unit unfinished basements that supply power for fire alarm systems.

**760.25 NPLFA Circuit Wiring Methods.** Installation of non-power-limited fire alarm circuits shall be in accordance with 110.3(B), 300.7, 300.11, 300.15, 300.17, and other appropriate articles of Chapter 3.

*Exception No. 1: As provided in 760.48 through 760.53.*

*Exception No. 2: Where other articles of this Code require other methods.*

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## 760.41 Power Sources for PLFA Circuits.

**(A) Power Source.** The power source for a power-limited fire alarm circuit shall be as specified in 760.121(A)(1), (A)(2), or (A)(3).

FPN No. 1: Tables 12(A) and 12(B) in Chapter 9 provide the listing requirements for power-limited fire alarm circuit sources.

FPN No. 2: See 210.8(A)(5), Exception No. 3, for receptacles in dwelling-unit unfinished basements that supply power for fire alarm systems.

(A) Transformers. A listed PLFA or Class 3 transformer.

(B) Power Supplies. A listed PLFA or Class 3 power supply.

(C) Listed Equipment. Listed equipment marked to identify the PLFA power source.

FPN: Examples of listed equipment are a fire alarm control panel with integral power source; a circuit card listed for use as a PLFA source, where used as part of a listed assembly; a current-limiting impedance, listed for the purpose or part of a listed product, used in conjunction with a non-power-limited transformer or a stored energy source, for example, storage battery, to limit the output current.

**(B) Branch Circuit.** An individual branch circuit shall be required for the supply of the power source. This branch circuit shall not be supplied through ground-fault circuit interrupters or arc-fault circuit interrupters.

## IV. Listing Requirements

**760.176 Listing and Marking of NPLFA Cables.** Non-power-limited fire alarm cables installed as wiring within buildings shall be listed in accordance with 760.176(A) and (B) and as being resistant to the spread of fire in accordance with 760.176(C) through (F), and shall be marked in accordance with 760.176(G). Cable used in a wet location shall be listed for use in wet locations or have a moisture-impervious metal sheath.

**(E) Type NPLF.** Type NPLF non-power-limited fire alarm cable shall be listed as being suitable for general-purpose fire alarm use, with the exception of risers, ducts, plenums, and other space used for environmental air, and shall also be listed as being resistant to the spread of fire.

FPN No. 1: One method of defining *resistant to the spread of fire* is that the cables do not spread fire to the top of the tray in the "UL Flame Exposure, Vertical Tray Flame Test" in UL 1685-2000, Standard for Safety for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables. The smoke measurements in the test method are not applicable.

Another method of defining *resistant to the spread of fire* is for the damage (char length) not to exceed 4 ft 11 in. when performing the CSA "Vertical flame test – Cables in cable trays," as described in CSA C22.2 No. 0.3-M-2001, Test Methods for Electrical Wires and Cables.

**760.179 Listing and Marking of PLFA Cables and Insulated Continuous Line-Type Fire Detectors.** Type FPL cables installed as wiring within buildings shall be listed as being resistant to the spread of fire and other criteria in accordance with 760.179(A) through (H) and shall be marked in accordance with 760.179(I). Insulated continuous line-type fire detectors shall be listed in accordance with 760.179(J). Cable used in a wet location shall be listed for use in wet locations or have a moisture-impervious metal sheath.

**(E) Type FPL.** Type FPL power-limited fire alarm cable shall be listed as being suitable for general-purpose fire alarm use, with the exception of risers, ducts, plenums, and other space used for environmental air, and shall also be listed as being resistant to the spread of fire.

FPN No. 1: One method of defining *resistant to the spread of fire* is that the cables do not spread fire to the top of the tray in the “UL Flame Exposure, Vertical Tray Flame Test” in UL 1685-2000, Standard for Safety for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables. The smoke measurements in the test method are not applicable.

Another method of defining *resistant to the spread of fire* is for the damage (char length) not to exceed 4 ft 11 in. when performing the CSA “Vertical flame test – Cables in cable trays,” as described in CSA C22.2 No. 0.3-M-2001, Test Methods for Electrical Wires and Cables.