



EXHIBIT 770.3 Incorrect installation of cables (upper diagram) and correct method (lower diagram).

The installation shall also conform to 300.4 and 300.11. Plenum cable ties and other nonmetallic cable accessories used to secure and support cables in other spaces used for environmental air (plenums) shall be listed as having low smoke and heat release properties in accordance with 800.170.

Informational Note No. 1: See ANSI/NECA/FOA 301-2016, *Standard for Installing and Testing Fiber Optic Cables*, ANSI/TIA-568.0-D-2015, *Generic Telecommunications Cabling for Customer Premises*, and ANSI/TIA 568.3-D-2016, *Optical Fiber Cabling and Components Standard*, for accepted industry practices.

Informational Note No. 2: See NFPA 90A-2021, *Standard for the Installation of Air-Conditioning and Ventilating Systems*, for discrete combustible components installed in accordance with 300.22(C).

Informational Note No. 2 references two requirements in NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*, that have an influence on installations covered in the NEC®. This is not intended to require products covered by this section to be listed for other than their smoke and heat properties.

Informational Note No. 3: Paint, plaster, cleaners, abrasives, corrosive residues, or other contaminants may result in an undetermined alteration of optical fiber cable properties.

- N (B) Circuit Integrity (CI) Cable.** Circuit integrity (CI) cable shall be supported at a distance not exceeding 610 mm (24 in.).

Cable shall be secured to the noncombustible surface of the building structure. Cable supports and fasteners shall be steel.

770.25 Abandoned Cables. The accessible portion of abandoned optical fiber 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.

See Article 100 for the definition of *accessible* (as applied to wiring methods). Abandoned cable unnecessarily increases fire loading, and, where installed in plenums, it can affect airflow.

See also

Article 100 for definition of the term cable, *abandoned* (abandoned cable)

770.26 Spread of Fire or Products of Combustion. Installations of optical fiber cables and communications raceways in hollow spaces, vertical shafts, and ventilation or air-handling ducts shall be made so that the possible spread of fire or products of combustion will not be substantially increased. Openings around penetrations of optical fiber cables and communications raceways through fire-resistant-rated walls, partitions, floors, or ceilings shall be firestopped using approved methods to maintain the fire resistance rating.

Informational Note: Directories of electrical construction materials published by qualified testing laboratories contain many listing installation restrictions necessary to maintain the fire-resistive rating of assemblies where penetrations or openings are made. Building codes also contain restrictions on membrane penetrations on opposite sides of a fire resistance-rated wall assembly. An example is the 600-mm (24-in.) minimum horizontal separation that usually applies between boxes installed on opposite sides of the wall. Assistance in complying with 770.26 can be found in building codes, fire resistance directories, and product listings.

N 770.27 Temperature Limitation of Optical Fiber Cables.

Optical fiber cable shall not be used in such a manner that its operating temperature exceeds that of its rating.

Part II. Cables Outside and Entering Buildings

770.44 Overhead (Aerial) Optical Fiber Cables. Overhead optical fiber cables containing a non-current-carrying metallic member entering buildings shall comply with 800.44(A) and (B).

(A) On Poles and In-Span. Where outside plant optical fiber cables and electric light or power conductors are supported by the same pole or are run parallel to each other in-span, the conditions described in 770.44(A)(1) through (A)(4) shall be met.

(1) Relative Location. Where practicable, the outside plant optical fiber cables shall be located below the electric light or power conductors.

(2) Attachment to Cross-Arms. Attachment of outside plant optical fiber cables to a cross-arm that carries electric light or power conductors shall not be permitted.