800.26 Spread of Fire or Products of Combustion. Installations of cables, communications raceways, cable routing assemblies 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 cables, communications raceways, and cable routing assemblies 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 800.26 can be found in building codes, fire resistance directories, and product listings.

800.27 Temperature Limitation of Wires and Cables. No wire or cable shall be used in such a manner that its operating temperature exceeds that of its rating.

Part II. Wires and Cables Outside and Entering Buildings

800.44 Overhead (Aerial) Wires and Cables. Overhead (aerial) communications wires and cables and CATV-type coaxial cables entering buildings shall comply with 800.44(A) through (D).

Informational Note: See ANSI C2-2017, *National Electrical Safety Code, Part 2 Safety Rules for Overhead Lines*, for additional information regarding overhead (aerial) wires and cables.

(A) On Poles, In-Span, Above Roofs, on Masts, or Between Buildings. If communications wires and cables or CATV-type coaxial 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 800.44(A)(1) through (A)(4) shall be met.

(1) Relative Location. If practicable, the communications wires and cables and CATV- type coaxial cables shall be located below the electric light or power conductors.

(2) Attachment to Cross-Arms. Communications wires and cables and CATV-type coaxial cables shall not be attached to a cross-arm that carries electric light or power conductors.

(3) Climbing Space. The climbing space through wires and cables shall comply with the requirements of 225.14(B).

Δ **(4) Clearance.** Supply service drops and sets of overhead service conductors of 0 volts to 750 volts running above and parallel to communications wires and cables and CATV-type coaxial service drops shall have a minimum separation of 300 mm (12 in.) at any point in the span, including the point of their attachment to the building, provided that the ungrounded conductors are insulated and that a clearance of not less than 1.0 m (40 in.) is maintained between the two services at the pole.

(B) Above Roofs. Communications wires and cables and CATV-type coaxial cables shall have a vertical clearance of not less than 2.5 m (8 ft) from all points of roofs above which they pass.

Exception No. 1: Communications wires and cables and CATV-type coaxial cables shall not be required to have a vertical clearance of not less than 2.5 m (8 ft) above auxiliary buildings, such as garages and the like.

Exception No. 2: A reduction in clearance above only the overhanging portion of the roof to not less than 450 mm (18 in.) shall be permitted if (1) not more than 1.2 m (4 ft) of communications and CATV-type service-drop conductors pass above the roof overhang and (2) they are terminated at a through- or above-the-roof raceway or approved support.

Exception No. 3: Where the roof has a slope of not less than 100 mm in 300 mm (4 in. in 12 in.), a reduction in clearance to not less than 900 mm (3 ft) shall be permitted.

Informational Note: See ANSI/IEEE C2-2017, *National Electrical Safety Code, Part 2, Safety Rules for Overhead Lines*, for additional information regarding overhead (aerial) wire and cables.

(C) On Masts. Overhead (aerial) communications wires and cables and CATV-type coaxial cables shall be permitted to be attached to an above-the-roof raceway mast that does not enclose or support conductors of electric light or power circuits.

(D) Between Buildings. Communications and CATV-type coaxial cables extending between buildings or structures, and also the supports or attachment fixtures, shall be identified and shall have sufficient strength to withstand the loads to which they might be subjected.

Exception: If a communications cable or a CATV-type coaxial cable does not have sufficient strength to be self-supporting, it shall be attached to a supporting messenger cable that, together with the attachment fixtures or supports, shall be acceptable for the purpose and shall have sufficient strength to withstand the loads to which they may be subjected.

In addition to the weight of the cable itself, wind and ice loads should be considered because they can damage cables and attachment points.

N **(E) On Buildings.** Where attached to buildings, communications wires and cables and CATV-type coaxial cables shall be securely fastened in such a manner that they will be separated from other conductors in accordance with 800.44(E)(1) and (E)(2).

N **(1) Electric Light or Power.** The communications wires and cables and CATV-type coaxial cables shall have a separation of at least 100 mm (4 in.) from electric light, power, Class 1, or