

## Part 5

# ELECTRICAL AND COMMUNICATION EQUIPMENT AND WIRING INCLUDING GROUNDING

## Chapter E 190

### SCOPE AND APPLICATION OF RULES

#### E 190.01 Scope of rules

#### E 190.02 Application of rules

**E 190.01 Scope of rules.** In part 5, the National Electrical Code has generally been followed. (The chapter numbers in the State Code correspond to the article numbers in the National Electrical Code). In some cases the rules differ from those in the National Electrical Code or are in addition thereto.

**History:** Cr. Register, January, 1968, No. 145, eff. 2-1-68.

**E 190.02 Application of rules.** (1) **GENERAL.** (a) Except as otherwise specified hereafter, these rules, which have for their purpose the practical safeguarding of persons and buildings and their contents from electrical hazards arising from the use of electricity, apply to the electric and communication conductors and equipment installed in places of employment, within or on public and private buildings and other premises, including yards, carnival and parking lots, mines, trenches and tunnels, and industrial substations; also the conductors that connect the installations to a supply of electricity, and other outside conductors adjacent to the premises.

(b) These rules do not apply to installations employed by a railway, electric or communication utility in the exercise of its function as a utility where the installations are located outdoors or in quarters used exclusively for that purpose, but they do apply to wires used in such quarters to distribute a power supply for lighting, service outlets, and other utilization equipment.

(c) The rules do not apply to installations in ships, aircraft, railway cars or automotive equipment.

(d) Chapters E 190 through E 480 of part 5 of the code are of general application. Chapters E 500 through E 730 of part 5 apply to installations which involve special occupancies, special equipment or other special conditions. These chapters are supplementary to, or amendatory of, the general rules, and the latter apply under such circumstances except as so amended for the particular conditions. Chapters E 800 and E 810 govern the installation of communication systems. No other chapters of part 5 apply to such installations,

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except as they may be specifically referred to in chapters E 800 and E 810. Some tables and examples are included in chapter E 900.

*Note 1.* The provisions of this code constitute a minimum standard. Compliance therewith and proper maintenance will result in an installation reasonably free from hazard but not necessarily efficient or convenient. This code is to be regarded neither as a design specification nor an instruction manual for untrained persons. Good service and satisfactory results will often require larger sizes of wire, more branch circuits, and better types of equipment than the minimum which is here specified.

*Note 2.* It is recommended that architects, when drawing plans and specifications, make provision for ample raceways for wiring, spaces for equipment, and allowances for future increases in the use of electricity. In laying out an installation for constant-potential systems, provision should be made for distribution centers located in easily accessible places for convenience and safety of operation.

*Note 3.* It is elsewhere provided in this code that the number of wires and circuits confined in a single enclosure be varyingly restricted. It is strongly recommended that architects and others provide similar restrictions wherever practicable, to the end that the effects of breakdowns from short-circuits or grounds, even though resulting fire and similar damage is confined to wires, their insulation and enclosures, may not involve entire services to premises nor interruptions of essential and independent services.

(2) **EQUIPMENT OF MORE THAN 600 VOLTS.** (a) All electrical equipment and conductors of more than 600 volts shall comply with the rules applying to electrical supply stations, Part 1. (See section E 110.01.)

(b) If such equipment and conductors are installed in supply stations or other quarters accessible only to qualified persons, they need not comply with the rules of Part 5, but only with the rules of Part 1.

(c) If such equipment and conductors are not installed in supply stations or other quarters accessible only to qualified persons, they shall comply with the rules of Part 5 for equipment of over 600 volts (See chapter E 710) and also with the rules of Part 1. In addition, all current-carrying parts shall be either incased in effectively grounded metal cases or conduit, or otherwise suitably guarded to prevent access (or too close approach) to such current-carrying parts by any but qualified persons.

(3) **EQUIPMENT ACCESSIBLE TO QUALIFIED PERSONS ONLY.** Electrical equipment and conductors, if installed in supply stations or other quarters accessible only to qualified persons, may be installed in conformity with the rules applying to electrical supply stations (Part 1), in which case only wiring used to distribute a power supply for lighting, service outlets and other utilization equipment need comply with the rules of Part 5. (See section E 110.01).

**History:** Cr. Register, January, 1968, No. 145, eff. 2-1-68.