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ARTICLE 215 - FEEDERS

215-1. Scope. This Article deals with installation requirements for, and, the size of conductors in the feeders needed to supply power to branch circuits and, the loads as calculated under Article 220.

215-2. Conductor Size. Feeder conductors shall have a current rating not smaller than the feeder load as determined by Section 220-4. A 2-wire feeder supplying two or more 2-wire branch circuits, or a 3-wire feeder supplying more than two-wire branch circuits, or two or more 3-wire branch circuits, shall be not smaller than No. 10. Where a feeder carries the total current supplied by the service-entrance conductors, such feeder, for services of No. 6 and smaller, shall be of the same size as the service-entrance conductors.

Where at any time it is found that feeder conductors are, or will be, overloaded, the feeder conductors shall be increased in capacity to accommodate the actual load served.

See Examples Nos. 1 to 7 to Chapter 9.

215-3. Voltage Drop. The size of the conductors for feeders should be such that the voltage drop for the load as computed by Section 220-4 would not be more than 3% for power, heating or lighting loads or combinations thereof. Providing further that the maximum total voltage drop for conductors for feeders and branch circuits should not exceed 5% over all.

215-4. Overcurrent Protection. Feeders shall be protected against overcurrent in accordance with the provisions of Article 240.

215-5. Common Neutral Feeder. A common neutral feeder may be employed for two or three sets of 3-wire feeders, or two sets of 4-wire or 5-wire feeders. When in metal enclosures, all conductors of feeder circuits employing a common neutral feeder shall be contained within the same enclosure as provided in Section 300-20.

215-6. Diagram of Feeders. If required by the authority having jurisdiction, a diagram showing feeder details shall be supplied previous to installation. This diagram should show: Area in square feet; load (before applying demand-factors); demand-factors selected; computed load (after applying demand-factors); and the size of conductors.

215-7. Installation Requirements. Where a feeder supplies branch circuits in which grounding conductors are required, the feeder shall include or provide a grounding means to which the grounding conductor of the branch circuit shall be connected.