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NATIONAL ELECTRICAL CODE®

NFPA No. 70; USAS C1-1968

ARTICLE 90 - INTRODUCTION

90-1. Purpose.

(a) The purpose of this Code is the practical safeguarding of persons and of buildings and their contents from hazards arising from the use of electricity for light, heat, power, radio, signalling and for other purposes.

(b) This Code contains basic minimum provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard, but not necessarily efficient, convenient, or adequate for good service or future expansion of electrical use.

Hazards often occur because of overloading of wiring systems by methods or usage not in conformity with the Code. This occurs because initial wiring did not provide for increases in use of electricity. For this reason it is recommended that the initial installation be adequate and that reasonable provisions for system changes be made as may be required for future increase in the use of electricity.

(c) This Code is not intended as a design specification nor an instruction manual for untrained persons.

90-2. Scope.

(a) **Covered.** It covers the electric conductors and equipment installed within or on public and private buildings and other premises, including yards, carnival and parking lots, and industrial substations; also the conductors that connect the installations to a supply of electricity, and other outside conductors adjacent to the premises; also mobile homes and travel trailers.

(b) Not Covered. It does not cover

(1) Installations in ships; watercraft, railway rolling stock, aircraft or automotive vehicles.

(2) Installations underground in mines.

(3) Installations of railways for generation, transformation, transmission or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes.

(4) Installations of communication equipment under exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations.

(5) Installations under the exclusive control of electric utilities for the purpose of communication, metering or for the generation, control, transformation, transmission and distribution of electric energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

(c) Special Permission. The authority having jurisdiction for enforcing the Code may grant exception for the installation of conductors and equipment, not under the exclusive control of the electric utilities and used to connect the electric utility supply system to the service entrance conductors of the premises served, provided such installations are outside a building or terminate immediately inside a building wall.

90-3. Code Arrangement. This Code is divided into nine chapters.

Chapters 1, 2, 3 and 4 apply generally; Chapters 5, 6 and 7 apply to special occupancies, special equipment, or other special conditions. The latter chapters supplement or amend the general rules. Chapters 1-4 apply except as amended by Chapters 5, 6 and 7 for the particular conditions .

Chapter 8 covers communications systems and is independent of the other chapters except where they are specifically referenced therein.

Chapter 9 consists of tables and examples.

90-4. Definitions. Article 100 contains definitions of a number of terms that are used in two or more Articles. In general, terms used only in a single article are defined in the Article concerned. For electrical terms not defined in the Code, refer to the USA Standard Definitions of Electrical Terms, USAS C-42-series.

90-5. Fundamental Rules. Throughout the Code are paragraphs which state only fundamentals or objectives of safeguarding. These are followed by paragraphs setting forth the recognized methods and detail by which the purpose and intent of the fundamental may be satisfied. Accordingly, when employed, the rules stating a fundamental only will appear as the first paragraph of an Article or Section.

90-6. Interpretation. In order to promote uniformity of interpretation and application of this Code, the National Electrical Code® Committee of the National Fire Protection Association has established a formal procedure for rendering interpretations in case of question. Applications for interpretations should be addressed to the National Fire Protection Association (see procedure for securing official interpretations of Code appearing in the Appendix).

90-7. Enforcement. This Code is intended to be suitable for mandatory application by governmental bodies exercising legal jurisdiction over electrical installations and for use by insurance inspectors. The administrative authority supervising such enforcement of the Code will have the responsibility for making interpretations of the rules, for deciding upon the approval of equipment and materials, and for granting the special permission contemplated in a number of the rules.

90-8. Examination of Equipment for Safety. For approval of specific items of equipment and materials covered by the Code, examinations for safety should be made under standard conditions, and the record made generally available through promulgation by organizations properly equipped and qualified for experimental testing, inspections of the run of goods at factories, and service-value determination through field inspections. This avoids the necessity for repetition of examinations by different examiners, frequently with inadequate facilities for such work, and the confusion that would result from conflicting reports as to the suitability of devices and materials examined for a given purpose. It is the intent of the Code that factory-installed internal wiring or the construction of equipment need not be inspected at the time of installation of the equipment except to detect alterations or damage if the equipment has been listed by an electrical testing laboratory, which is nationally recognized as having the facilities described above and which requires suitability for installation in accordance with the Code.

90-9. Wiring Planning.

(a) It is recommended that electrical engineers and others 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.

(b) 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 electrical engineers and others who are planning installations 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 are confined to wires, their insulation and enclosures, may not involve entire services to premises nor interruptions of essential and independent services.

90-10. Revisions. It is customary to revise this Code periodically to conform with developments in the art and the result of experience, and the latest edition of the Code should always be used.