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COUNTY COUNCIL OF PRINCE GEORGE'S COUNTY, MARYLAND

Legislative Session 1991

Bill No. CB-99-1991

Chapter No. 81

Proposed and Presented by The Chairman (by request -
County Executive)

Introduced by Council Members Castaldi, Bell and Casula

Co-Sponsors _____

Date of Introduction November 5, 1991

BILL

AN ACT concerning

Electrical Code

FOR the purpose of adopting the 1990 Edition of the National Electrical Code with certain amendments including provisions concerning license procedures, license fees and permit fees.

BY repealing and reenacting with amendments:

SUBTITLE 2. ADMINISTRATION.

Section 2-253.53,

The Prince George's County Code

(1987 Edition, 1989 Supplement).

SUBTITLE 9. ELECTRICITY.

Sections 9-101,

9-105,
9-106,
9-106.1,
9-107,
9-107.1,
9-108,
9-108.2,
9-109,
9-121, and
9-122,

The Prince George's County Code
(1987 Edition, 1989 Supplement).

BY renumbering:

SUBTITLE 9. ELECTRICITY.
Section 9-107.2 to be
Section 9-107,
The Prince George's County Code
(1987 Edition, 1989 Supplement).

BY adding:

SUBTITLE 9. ELECTRICITY.
Section 9-107.1
The Prince George's County Code
(1987 Edition, 1989 Supplement).

SECTION 1. BE IT ENACTED by the County Council of Prince George's County, Maryland, that Sections 2-253.53 and Sections 9-101, 9-105, 9-106, 9-106.1, 9-107, 9-107.1, 9-108, 9-108.2, 9-109, 9-121, and 9-122, of the Prince George's County Code be and the same

are hereby repealed and reenacted with the following amendments:

SUBTITLE 2. ADMINISTRATION.

DIVISION 14B. MASTER ELECTRICIAN'S

LICENSE AND ELECTRICAL

CONTRACTOR'S LICENSE.

Sec. 2-253.53. License application procedure; requirements.

* * * * *

(c) * * * * *

(3) License Fee. Prior to issuance of a first year license following passing of the qualifying examination, each applicant shall remit Twenty-five Dollars (\$25.00) to cover the cost of the first year license.

(d) * * * * *

(3) License Fee. Prior to issuance of a first year license following passing of the qualifying examination, each applicant shall remit Twenty-five Dollars (\$25.00) to cover the cost of the first year license.

[~~(3)~~] (4) Where the limited license is incidental to a business or occupation requiring testing or proof of competency as a condition of a license, the applicant shall supply proof of license in such business or occupation. Where such business or occupation is unlicensed, the applicant shall supply proof of education experience in such business or occupation.

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SUBTITLE 9. ELECTRICITY.

DIVISION 1. ELECTRICAL CODE.

Subdivision 1. Adopted by Reference.

Sec. 9-101. Code; adoption by reference.

(a) The National Electrical Code (NEC), [1987] 1990 Edition, as adopted by the National Fire Protection Association, is hereby adopted by reference and made a part of this Subtitle with the same force and effect as though set out in full herein as the Official Electrical Code of Prince George's County, together with the changes, deletions, or modifications prescribed in this Subtitle. All electrical work performed or contracted to be performed in the County shall be included within the purview of this Subtitle.

Subdivision 2. Amendments to the National Electrical Code.

[Sec. 9-105. General; Article 110 -- Requirements for electrical installations.

(a) The following amendments, additions, and/or deletions are made to Article 110 of the National Electrical Code:

(1) The text of Section 110-5, "Conductors", is amended to read as follows:

Conductors normally used to carry current shall be of copper unless otherwise provided in this Code. Where the conductor material is not specified, the sizes given in this Code shall apply to copper conductors. Where other materials are used, the size shall be changed accordingly.

For aluminum and copper-clad aluminum conductors see Tables 310-16 through 310-31.

The use of aluminum or copper-clad aluminum in sizes smaller than #6 AWG is prohibited.]

[Sec. 9-106] Sec. 9-105. Wiring design and protection; Article 210 -- Branch circuits.

(a) The following amendments, additions, and/or deletions are made to Article 210 of the National Electrical Code:

* * * * *

(2) Section 210-70 (a), titled "Dwelling Unit(s)". [Add the following to the second paragraph: All potential storage spaces (such as, but not limited to, attic, understairs, underfloors) shall have a switchable light. Unless plans are marked "attic not for storage" and a similar legible sign appears by the scuttle hole, an attic light is required.] Amend the second paragraph to read as follows: At least one lighting outlet controlled by a light switch located at the point of entry to the attic, underfloor space, utility room, and basement shall be installed. The lighting outlet shall be provided at or near any equipment requiring servicing if present.

[(3) A new Section 210-71, titled "Light switching in commercial buildings", is added to read as follows: Switching shall be provided for each lighting circuit, or for portions of each circuit, so that the partial lighting satisfactory for custodial or for effective complementary use with natural lighting may be operated selectively.

(4) A new Section 210-72, titled "Stairway Lighting", is added to read as follows: Areas accessible by stairways, and the stairways, shall have at least one (1) light. The stairway light shall be controlled by wall switches at each floor or by a light-sensitive switch.]

[Sec. 9-106.1. Same; Article 220 -- Branch-Circuit and Feeder Calculations.

(a) The following amendments, additions, and/or deletions are made to Article 220 of the National Electrical Code:

(1) The first paragraph of Section 220-4(b)(1) is amended to read as follows:

In addition to the number of branch circuits determined in accordance with (a) above, two (2) or more 20-ampere small appliance branch circuits shall be provided for all receptacle outlets specified by Section 210-52 for the small appliance loads, including refrigeration equipment, in the kitchen, pantry, breakfast room, dining room and family/recreation room of a dwelling unit. Such circuits, whether a total of two (2) or more are used for all of the rooms indicated, shall have no other outlets.]

[Sec. 9-107. Same; Article 230 -- Services.

(a) The following amendments, additions, and/or deletions are made to Article 230 of the National Electrical Code:

(1) Section 230-2.1, titled "Service Voltage", is added to read as follows: Where a choice of service voltages is available from the power company, the voltage resulting in the least energy required shall be used.

(2) Section 230-2.2, titled "Separate Metering", is added to read as follows: In all new multifamily dwellings, provisions shall be made to determine the electrical energy consumed by each dwelling unit.]

[Sec. 9-107.1.] Sec. 9-106. Same; Article 250 -- Grounding.

(a) The following amendments, additions, and/or deletions are made to Article 250 of the National Electrical Code:

[(1) Section 250-80 (a). Metal Water Piping. The interior metal water piping system shall be bonded to the service equipment enclosure, the grounded conductor at the service, the grounding electrode conductor where of sufficient size, or to the one (1) or more grounding electrodes used. The bonding jumper shall be sized in accordance with Table 250-94. The points of attachment of the bonding jumper shall be accessible. This Section requires a single connection to the interior metal water piping system. However, some judgment must be exercised in each specific case. Where it cannot reasonably be concluded that the hot and cold water pipes are reliably interconnected, an electrical bonding jumper is required to assure that this connection is made.]

(1) Section 250-81(c), "Concrete - Encased Electrode", is amended to read as follows: All new structures, both residential and commercial, require a concrete encased electrode to be used as the principal grounding element. A concrete encased electrode is an electrode encased by at least 2 inches (50.8 mm) of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 20 feet (6.1 m) of one or more steel reinforcing bars or rods of not less than 1/2 inch (12.7 mm) diameter, or consisting of at least 20 feet of (6.1 m) bare solid copper conductor not smaller than No. 4 AWG. Steel reinforcing rods and/or copper conductor shall be supported in the trench to insure 2 inches (50.8 mm) separation from earth. If a rod with galvanized finish is used, a bronze or brass clamp listed for the purpose may be used to attach the grounding conductor which requires a minimum of 2 foot (0.61 m)

of accessible length after installation. If a nongalvanized rod is used, an exothermic weld is required to attach the grounding conductor. Rods having a nonconductor coating shall not be used for the required grounding electrode.

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Sec. 9-108. Wiring Methods and Materials; Article 336 - Nonmetallic-Sheathed Cable.

(a) The following amendments, additions, and/or deletions are made to Article 336 of the National Electrical Code:

(1) The first paragraph of Section 336-4, "Uses Not Permitted"; is amended to read as follows: (a) Type NM or NMC. Types NM and NMC cables shall not be used: (1) in any dwelling or structure exceeding a total of four (4) floors; (2) as service-entrance cable; (3) in commercial garages having hazardous (classified) locations as provided in Section 511-2; (4) in theaters and similar locations, except as provided in Article 518, Places of Assembly; (5) in motion picture studios; (6) in storage battery rooms; (7) in hoistways; (8) imbedded in poured cement, concrete, or aggregate; or (9) in any hazardous (classified) location except as permitted by Section 501-4(b) and 504.20.

Sec. 9-108.2. Equipment for General Use; Article 410 -- Lighting Fixtures, Lampholders, Lamps, Receptacles, and Rosettes.

(a) The following amendments, additions, and/or deletions are made to Article 410 of the National Electrical Code:

(1) The following addition is made to paragraph (c) of Section 410-16: All "lay-in" light fixtures will require independent suspension to insure that the fixture will not drop more

than nominally two (2) or three (3) inches when the framing members no longer provide the support. Number 12 SWG wire firmly secured to the building structure and the light fixture is satisfactory for this purpose. Two (2) restraining wires (one (1) at each end of the fixture) are required for the two-tube fluorescent fixtures and four (4) restraints (one (1) at each corner) are required for four-tube fluorescent fixtures. Other types of lay-in fixtures shall also have a secondary support to preclude the danger of falling when the framing members fail or are removed. [Fixture installation in fire-rated ceilings requires also that screws or listed clips be used to fasten fixture to the T-bars.]

Sec. 9-109. [Same; Article 460 -- Capacitors.] Reserved.

[(a) The following amendments, additions, and/or deletions are made to Article 460 of the National Electrical Code:

(1) Section 460-3, titled "Power Factor", is added to read as follows: The power factor of the overall electrical distribution system in a nonresidential building shall not be less than ninety percent (90%) of the rated design installed load of the building, either by utilization equipment design or by the use of power factor corrective devices. The power factor corrective devices may be installed on individual equipment rated greater than one thousand (1,000) watts and switched therewith, regionally grouped, located at the service equipment or the power factor correction may be achieved by other equivalent means. The choice among these corrective methods should be based upon an engineering evaluation of each distribution system.]

Subdivision 4. Enforcement.

Sec. 9-121. Fee for permits and inspections.

(a) The fees for electrical permits and inspections of electrical installations pursuant to this Subtitle shall be according to the following schedule:

RESIDENTIAL

* * * * *

Domestic Appliances:

Dishwasher, disposal, trash compactor, water heater, room air conditioner, sump pump, water pump, attic fan (1/8 HP to 1 HP, inclusive).....\$ 3.00

(For Motors under 1/8 HP, use fixture schedule; for Motors over 1 HP, use Commercial Fee Schedule.)

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SERVICES, PANELS, AND FEEDERS

* * * * *

Commercial Telephone, Data, Audio, and Signal Circuits:

Control panel, key system unit (KSU), control processing unit (CPU).....\$10.00
Outlets, jacks, speakers, lights, etc., first 20.....\$12.00
Each additional.....\$.25
Computer main frame and auxillary equipment.....\$40.00

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Sec. 9-122. Refunds for unused permits and inspections.

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(c) [Whenever a change of electrical contractor occurs, a new permit must be obtained by the new electrical contractor to complete

the remainder of the work. Before the new permit can be issued, the holder of the current electrical permit and the power company must be notified of this change, an inspection must be made to determine the status of the work, and the new electrical contractor must make application for the permit. (See fee schedule for cost of permit).] Whenever a change of electrical contractor occurs, the property owner, developer, or general contractor must inform the County by letter of such change. The letter should be addressed to the Chief Electrical Inspector and should include the following: electrical permit number(s), addressee(s), the last type of inspection if any, the reason for changing contractor and the new contractor if selected. A copy of this letter should also be sent to the utility providing electric power when service work is included on the permit(s). Subsequent to receipt of this letter a "change in contractor" type of inspection will be made. When the inspection is completed and before resuming work the new contractor must obtain a new permit at a cost to be determined by the Chief Electrical Inspector.

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SECTION 2. BE IT FURTHER ENACTED that Section 9-107.2 be and the same is renumbered to be Section 9-107.

SECTION 3. BE IT FURTHER ENACTED that a new Section 9-107.1 be and the same is hereby added to the Prince George's County Code to read as follows:

SUBTITLE 9. ELECTRICITY.

DIVISION 1. ELECTRICAL CODE.

Subdivision 2. Amendments to the National

Electrical Code.

Sec. 9-107.1. Wiring Methods and Material; Article 310 - Conductors for General Wiring.

(a) The following amendments, additions, and/or deletions are made to Article 310 of the National Electrical Code:

(1) The following paragraph is added to Section 310-2, "Conductors": (c) Aluminum Conductors. Aluminum conductors shall be permitted only for service and feeder use and shall not be smaller than #2 AWG.

(2) The following addition is made to Note 8(a) to Table 310-16: Exception No. 5. No diversity is permitted when determining ampacity of three or more conductors in a raceway or cable.

SECTION 4. BE IT FURTHER ENACTED that this Act shall take effect forty-five (45) calendar days after it becomes law.

Adopted this 26th day of November, 1991.

COUNTY COUNCIL OF PRINCE
GEORGE'S COUNTY, MARYLAND

BY: _____
Richard J. Castaldi
Chairman

ATTEST:

Maurene W. Epps
Acting Clerk of the Council

APPROVED:

DATE: _____

BY: _____
Parris N. Glendening
County Executive

KEY:

Underscoring indicates language added to existing law.

[Brackets] indicate language deleted from existing law.

Asterisks *** indicate intervening existing Code provisions that remain unchanged.