

COMMISSIONERS OF BEL AIR
AGENDA
June 17, 2024

ORDINANCE 831-24 - ELECTRICAL STANDARDS

RECOMMENDED MOTION: "...that Ordinance No. 831-24, rescinding and reenacting Chapter 180 Electrical Standards, to the Bel Air Town Code be received by the Board of Town Commissioners."

BACKGROUND

The National Electrical Code (NEC), published by the National Fire Protection Association (NFPA), is the nationally recognized authority for electrical design and installation. Harford County has adopted the 2023 edition of the NEC with specific amendments. By mutual agreement, the Harford County Department of Inspections, Licenses, and Permits serves as the electrical code review and inspection agent for the Town. To ensure consistency with the current building codes enforced in the County, the Town of Bel Air should also adopt the 2023 edition of the NEC.

PRIMARY ISSUES

The Town of Bel Air requires a comprehensive set of rules and regulations for the proper design, installation, and maintenance of electrical systems. In response to the County Executive's request, the Harford County Council has adopted the 2023 edition of the National Electrical Code (NEC) with specific amendments. It is prudent for the Town to adopt the same set of rules and regulations used by our design review and inspection agent throughout the County to ensure consistency and compliance.

DISCUSSION/EXPLANATION

There are several modifications to Chapter 180, Electrical Standards, and amendments to the 2023 National Electrical Code (NEC) included in the recommended motion. These modifications and amendments are intended to better align the NEC 2023 edition with the specific construction needs of the Town. Proposed deletions are indicated by red strikethrough text, while additions are highlighted with underlined red text in the proposed ordinance.

RECOMMENDATION

A public hearing will be held on the July 15, 2024, meeting of the Board of Town Commissioners. The staff recommends that the proposed Ordinance No. 831-24 be received by the Board of Town Commissioners.

ORDINANCE NO. 800-21 831-24

AN ORDINANCE TO AMEND the Code of the Town of Bel Air by deleting and repealing Chapter 180 thereof, Electrical Standards, and replacing it with a new Chapter 180 to be entitled Electrical Standards, which chapter provides for the establishment of standards and safeguards for the proper design, acceptable installation and adequate maintenance of electrical systems within the Town of Bel Air, including but not limited to granting and revocation of permits and the fixing of penalties and fees for violation of the chapter.

BE IT ENACTED by the Board of Town Commissioners as follows:

Section 1.

The Code of the Town of Bel Air is hereby amended by deleting and repealing Chapter 180, Electrical Standards.

Section 2.

The Code of the Town of Bel Air is hereby amended by adding thereto a new chapter 180, Electrical Standards, to read as follows:

- §180-1 Adoption of Electrical Code.
- §180-2 Purpose.
- §180-3 Scope and Applicability.
- §180-4 Amendments to Electrical Code.
- §180-5 Adoption of County Regulations.
- §180-6 Licensing and registration.
- §180-7 Permit required.
- §180-8 Inspections.
- §180-9 Administration and enforcement.
- §180-10 Right of entry.
- §180-11 Violations and penalties.
- §180-12 Emergency disconnections.
- §180-13 Fees.

§ 180-1. Adoption of Electric Code.

For the purpose of establishing rules and regulations for the proper design, acceptable installation and adequate maintenance of electrical systems within the Town of Bel Air, including but not limited to the granting and revocation of permits and the fixing of penalties and fees, the Town of Bel Air hereby adopts the National Electrical Code, 2020³ Edition, including all annexes, as adopted by the National Fire Protection Association (Electrical Section), saving and excepting such portions as are deleted, modified or amended by this chapter, and the same is hereby adopted and made part of this chapter with the same force and effect as though set in full herein.

§ 180-2. Purpose.

The purpose of this chapter is to provide practical electrical regulations to safeguard persons and property from hazards arising from the use of electricity in the Town of Bel Air.

§ 180-3. Scope and Applicability.

The provisions of this chapter shall apply to and govern electrical regulations to safeguard persons and electrical conditions within the Town of Bel Air.

§ 180-4. Amendments to Electrical Code.

A. The National Electrical Code, 2020~~3~~ Edition, adopted by this chapter is amended and revised as follows:

(1) Definitions.

- (a) As used in this code, the term “Building Official” means the Director of Public Works or his/her designee.
- (b) As used in the code in this code, the term “Department of Building Safety” means the Department of Inspections, Licenses and Permits.

(2) In Subsection 110.14 of the National Electrical Code (2020~~3~~), add the following sentence to the end of the first paragraph ~~“an inhibitor shall be used for the termination of all aluminum conductors.~~Aluminum conductors shall be connected in accordance with the U.S. Consumer Product Safety Commission Publication 516 Repairing Aluminum Wiring.”

~~(3) Aluminum conductors of 6 AWG and smaller are not permitted.~~

~~(4)~~(3) In Subsection 210.8 add the following exceptions:

- (a) Exception 1: Receptacles for submersible pumps within dwelling units are permitted to be installed without GFCI protection when a single receptacle is utilized.
- (b) Exception 2: Receptacles for refrigeration are permitted to be installed without GFCI protection when a single receptacle is utilized.

~~(5) Subsection 103.2, Appointment, is amended by adding “and deputy director” after the word “official” in the first line.~~

~~(4)~~ In Subsection 210.52(b)(1) and 210.52(B)(2)11(C)(1), delete the word "two" in the ~~first~~ third line and insert the word "three" in lieu thereof.

- (5) In Subsection 210.52(B)(1) of the National Electric Code (2023), delete the word “two” in the third line and insert the word “three” in lieu thereof.
- (6) In Subsection 210.52(B)(2) of the National Electric Code (2023), delete the word “two” in the first line and insert the word “three” in lieu thereof.
- (7) In Subsection 210.52(B)(3) of the National Electric Code (2020~~3~~), add the following sentence after “(1)” in the sixth line: “Adjacent receptacles serving the countertop shall be on alternating circuits.”
- (8) In subsection 210.52(C) of the National Electric Code (2023), Items (2) and (3) are deleted in their entirety and replaced with the following:

(2) Island Countertop Spaces. At least one receptacle shall be installed at each island and countertop space with a long dimension of 600mm (24in.) or greater and a short dimension of 300mm (12in.) or greater.

(3) Peninsular Countertop Spaces. At least one receptacle shall be installed at each island and countertop space with a long dimension of 600mm (24in.) or greater and a short dimension of 300mm (12in.) or greater. A peninsular countertop is measured from connected perpendicular wall.

(4) Separate Spaces. Countertop spaces separated by range tops, refrigerators, or sinks shall be considered as a sperate countertop spaces in applying the requirements of 210.52(C)(1). If range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 300mm (12in.).

(5) Receptacle Outlet Location. Receptacle outlets shall be located on or above, but not more than 500mm (20in.) above, the countertop or work surface.

- ~~(6)~~(9) Subsection 230.85 of the National Electric Code (2020~~3~~) is deleted in its entirety.
- ~~(7)~~(10) In Subsection 240.21(B)(1) and (B)(2) add the following exception: "Exception: In meter rooms, the conductors within the auxiliary gutter that supplies the meters shall not count as part of the total length."
- ~~(8)~~(11) In Subsection 250.52(A)(5) of the National Electrical Code (2020~~3~~), delete both paragraphs (A) and (B) beginning in the fourth line and add the following after the word “Materials” in the third line: “Electrodes of rods of iron or steel are not permitted. Stainless steel rods, nonferrous rods, or their equivalent shall be listed and shall not be less than 16 mm (5/8 inch) in diameter.”
- ~~(9)~~(12) In Subsection 250.104(B)(1) add the following language to the end of the sentence: "for other than gas piping system(s)." Under (B)(1), add the following language:

"for gas piping system(s), the bonding conductors shall not be smaller than 6AWG copper wire or equivalent to be connected at a readily accessible location either outside of a building or structure or inside nearest to the point of entrance of the piping system and ahead of any CSST piping that may be installed in the structure."

~~(10)(13)~~ In Subsection 310.3 of the National Electrical Code (2020~~3~~) delete "12" in the third line and insert "4" in lieu thereof, and add "12 AWG" between the words "or" and "copper-clad" in the same line.

~~(11)(14)~~ In Subsection 410.36(B) of the National Electrical Code (2020~~3~~), delete the entire subsection after the words "ceilings" in the title and insert the following in lieu thereof: "All 'lay-in' luminaires and devices require independent suspension to ensure the luminaire will not drop when the framing members no longer provide support. At a minimum, 12 SWG wire which is firmly secured to the building structure and the luminaires and devices must be utilized. Two independent restraining wires at opposite and opposing corners are required for fluorescent luminaires and four restraining wires, one at each corner, are required when installed in fire rated ceilings. Other types of luminaires and devices smaller than 2 by 2 feet installed in suspended ceilings must have at least one 12 SWG or larger wire which is firmly secured to the building structure and the luminaire as a secondary support to preclude the danger of falling when the framing members fail or are removed."

~~(12)(15)~~ In Subsection 422.5(A) of the National Electrical Code (2020~~3~~), delete "(6) sump pumps".

(16) In Subsection 680.26(B)(2)(~~Bb~~) of the National Electrical Code (2020~~3~~), add the following after the word "methods" in the second line "for above ground pools".

~~(13)~~ delete the language after "alternate means" including (1) through (5) and insert the following language in lieu thereof: "Where structural reinforcing steel is not available or is encapsulated in a nonconductive compound, a copper conductor grid shall be provided and shall comply with (B)(1) through (B)(3). (1) Be constructed of minimum 8 AWG bare solid copper conductors bonded to each other at all points of crossing. (2) Conform to the contour of the pool and the pool deck. (3) Be arranged in a 300 MM (12 inch) network of conductors in a uniformly spaced perpendicular grid pattern with a tolerance of 100 mm (4 inches)."

~~(14)(17)~~ In subsection 700.12(H)(2) insert the following language at the end of (3)(A): The branch circuit disconnecting means shall be provided with a lock-on feature.

~~(15)~~ In subsection 680.26(B)(2)(A) of the National Electrical Code (2020), add the following after the word "shall" in the second line: "be a minimum of 3/8 in. thick and".

(16) ~~In subsection 680.26(B)(2)(B) of the National Electrical Code (2020), add the following before the word "where" in the first line: "for above ground pools"~~

(17)(18) Delete Informative Annex H of the National Electric Code (2020) in its entirety and insert the following in lieu thereof: " Informative Annex H, administration and enforcement, Section 102, of Harford County Bill No. 19-033.

§ 180-5. Adoption of County Regulations.

The following sections of Chapter 105 Harford County, Electricity Code are adopted by reference and shall apply to electricity services in the Town of Bel Air: § 105.1 through 105.49.

§ 180-6. Licensing and Registration.

All persons performing electrical work in the Town of Bel Air shall be licensed and registered in accordance with Article III, Licenses and Registrations, of the Harford County Electrical Code. No license or permit shall be required for installations of low-voltage systems of 50 volts or less within a dwelling.

§ 180-7. Permit Required.

No work authorized under this chapter, unless accepted in this chapter, shall be undertaken without an electrical permit issued by the Harford County Division of Electrical Services under the authority of the Town of Bel Air.

§ 180-8. Inspections.

The Harford County Division of Electrical Services shall perform the inspection of all electrical work for which an electrical permit is required in the Town of Bel Air during the course of construction and upon completion of the construction. If any defects are found, the Town of Bel Air shall have the authority to order such electrical work to be corrected to comply with the provisions of the code.

§ 180-9. Administration and enforcement.

This chapter shall be administered and enforced by the Department of Public Works, herein referred to as the "Department."

§ 180-10. Right of entry.

The Director or an authorized representative, upon exhibiting proper credentials or proof of identity on request, has the right to enter any building, structure or premises, except private residences, without consent of the occupants, at any time during business or operating hours and at such other times as may be necessary in any emergency that immediately endangers life, property or public safety for the purpose of enforcing this chapter. In the case of multiple dwellings, the Director or an authorized representative has the right to enter without consent only

those spaces to which the public is ordinarily admitted, such as hallways, basements and similar spaces, provided that the Director or an authorized representative may enter any private residence or dwelling for the purpose of enforcing this chapter with the consent of the occupants or without such consent if the Director obtains an administrative search warrant in accordance with prescribed legal procedure or if there is an emergency present.

§ 180-11. Violations and penalties.

Any person in violation of the provisions of this chapter and rules and regulations promulgated pursuant thereto shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be subject to penalty as provided in Chapter 1, Article II of this Code. In addition, the Town may institute other appropriate legal actions for the enforcement of this chapter.

§ 180-12. Emergency disconnections.

Where any electrical system, whether installed before or after the enactment of this chapter, is determined by the Director to be an immediate threat to the safety of persons or property, or where it may interfere with the fire-protection service of any fire department in the county, the Director shall have authority to cause the electrical system to be disconnected immediately without prior notice to the owner.

§ 180-13. Fees.

Prior to the issuance of any permit or license as provided for in this chapter, the applicant shall pay a fee in accordance with the schedule of fees established and revised by Harford County. Fees for electrical permits are separate from the fees paid for building permits and will be paid directly to the Harford County Division of Electrical Services.

AND BE IT FURTHER ENACTED AND ORDAINED by the Board of Town Commissioners that this ordinance shall become effective on, 2024.

INTRODUCTION:
PUBLIC HEARING:
ENACTMENT:
EFFECTIVE:
AYES:
NAYS:
ABSENT:

Paula S. Etting, Chair
Board of Town Commissioners