Resolution No.: 18-555
Introduced: July 19, 2016
Adopted: July 19, 2016

COUNTY COUNCIL
FOR MONTGOMERY COUNTY MARYLAND

Lead Sponsor: County Council

SUBJECT: Approval of Executive Regulation 6-16AM, 2014 National Electrical Code

Background

1. The Montgomery County Code, under Chapters 8 (Buildings), and 17 (Electricity), authorizes the County Executive to adopt regulations under Method (2).

2. Regulation 6-16AM would replace the 2008 National Electrical Code with the 2014 National Electrical Code with amendments. It also requires, for commercial uses, that a master electrician inspect electrical service equipment once every 3 years.

3. The State Fire Marshal requires adoption of the most recent model electrical code.

4. The Executive indicates that the approval of this regulation will have no effect on County expenditures or Revenues.

5. On June 28, 2016, the County Council received Executive Regulation 6-16 with a stated effective date of July 1, 2016. Regulation 6-16AM revised the effective date to July 19, 2016 and, for the purpose of describing when a maintenance inspection is required, better defined commercial use.

6. The Council reviewed the regulation under Method (2) of County Code §2A-15.

7. Under Method (2), the Council may approve, disapprove, or extend the time for action within 60 days of receiving the regulation. In the absence of Council action, the regulation is deemed approved as submitted.

Action

The County Council for Montgomery County, Maryland approves the following resolution:

The County Council approves Executive Regulation 6-16AM, 2014 National Electrical Code.

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council

MONTGOMERY COUNTY EXECUTIVE REGULATION

Offices of the County Executive. 101 Monroe Street. Rockville, Maryland 20850

Subject: Adoption of the 2014 National Electrical Code	**Number:** 6-16AM
Originating Department: Department of Permitting Services	**Effective Date:** July 19, 2016

Montgomery County Regulation on:

ADOPTION OF THE 2014 NATIONAL ELECTRICAL CODE

DEPARTMENT OF PERMITTING SERVICES

Issued by County Executive
Regulation # 6-16AM

Authority: Code Section 17-2 and 17-3
Supersedes: Executive Regulation No. 15-09
Council Review: Method 2 under Code Section 2A-15
Register Vol. 23, Issue 4

Comment Deadline: April 30,2016
Effective date: July 19, 2016
Sunset date: None

SUMMARY:
This regulation adopts the National Electrical Code, 2014 Edition, with local amendments. This regulation applies to all electrical equipment, installations and activities within the County.

ADDRESSES: Department of Permitting Services
255 Rockville Pike, Second Floor
Rockville, Maryland 20850

STAFF CONTACT: Michael F. Raffael
(240) 777-6230

BACKGROUND:

This regulation supersedes Executive Regulation # 15-09, which adopted the 2008 edition of the National Electrical Code. This regulation adopts the 2014 edition of the National Electrical Code, which is used nationwide. The 2014 National Electrical Code was adopted by the National Fire Protection Association at its Association Technical Meeting held June 10-13, 2013, in Chicago, IL.

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17.02.01.01
In accordance with procedures authorized in Chapter 17, Sections 17-2 and 17-3, Regulations and Adoption of Basic Electrical Code, Montgomery County Code, as amended (the code), the following executive regulation applies to all electrical equipment, installations, and activities within Montgomery County.

17.02.01.02
Unless otherwise noted, all references to the National Electrical Code (hereafter referred to as NEC) contained in this regulation are to The National Electrical Code (NFPA No. 70-2014), adopted by the National Fire Protection Association at its Association Technical meeting held June 10-13, 2013, in Chicago, IL. This regulation supersedes all previously promulgated references to the NEC.

17.02.01.03
The 2014 NEC is adopted as the Electrical Code of Montgomery County, and all electrical installations and equipment must meet the standards and requirements set forth in that code or in this regulation. The 2014 NEC is incorporated by reference as if that code were fully set forth with the following additions, deletions, and amendments.

Whenever the provisions of this regulation and those of the NEC are in conflict, the provisions of this regulation will govern and be enforced in the County. The Director is solely responsible for the interpretation of these regulations as amended.

17.02.01.04
ARTICLE 100 DEFINITIONS
Add the following definition after the definition of "Appliance," as provided in Article 100:
Appliance, Fixed: An appliance which is fastened or otherwise secured at a specific location.

Amend the definition of "Building" as follows:
Building: A structure which stands alone or which is separated from adjoining structures by fire walls conforming to the definition and requirements of ICC International Building Code for fire walls.

17.02.01.05
Section 210.5(C) add the following to article:
210.5(C). Ungrounded Conductor. Where installed in raceways, as open work or as concealed knob-and-tube work. Ungrounded conductors must be identified by a color other than as specified in (A) or (B) above. All ungrounded conductors of the same color must be connected to the same ungrounded feeder conductor, and the conductors for systems of different voltages must be of different colors.

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Exception. As permitted in Section 200.7

For basic single- and three-phase wiring systems of 120/208/240 volts: 3-wire circuits must use 1 black, 1 white, and 1 red wire; 4-wire circuits must use 1 black, 1 white, 1 red, and 1 blue wire. For basic single- and three-phase wiring systems of 277/480 volts, the colors gray, brown, orange, and yellow must be used in accordance with commonly accepted trade practices.

17.02.01.06
Section 210.11. Add the following sentence:
Each fixed appliance must be served by an individual branch circuit except for electric baseboard heaters, appurtenant equipment to furnaces, such as humidifiers and electronic air cleaners, and other equipment having motors rated 1/4 hp or less.

17.02.01.07
Section 210.12(B). Add a new exception to read as follows:
Exception # 2: If an existing circuit is extended, arc-fault circuit interrupter protection is not required.

17.02.01.08
Section 210.19(A)(3). Delete and substitute the following:
Section 210.19(A)(3). Each wall-mounted oven and each counter-mounted cooking unit must be served by an individual circuit of copper wire. The conductor size is based on 100 percent of the nameplate rating of the unit, but cannot be smaller than size No. 10.

17.02.01.09
Section 210.52(A). Add the following new subsection:
(5) General lighting branch circuits in dwellings must not have more than 12 receptacle outlets. A duplex receptacle is considered to be one outlet.

Section 210.52(B). Add the following as the first paragraph:
A general appliance branch circuit in a dwelling must not have more than eight receptacle outlets. A duplex receptacle is considered to be one outlet.

Section 210.52(E)(1). Add the following sentence:
When an addition is made to an existing dwelling which has no outside ground-fault circuit-interrupter (GFCI) receptacle, a GFCI protected receptacle, accessible at grade level, must be installed on the outside of the new addition.

Section 210.52(E)(3). Add the following paragraph at the end:
If altered, existing balconies, decks, and porches that are attached to the dwelling unit, accessible from inside the dwelling unit, and greater than 20 square feet, must have at least one receptacle outlet accessible from the balcony, deck, or porch.

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17.02.01.10
Section 230.70(A)(1). Add the following:
In new buildings, excluding one and two family dwellings, if the Main Electrical Service Equipment Room does not have direct exit to grade, a shunt trip to disconnect the electrical service to the building must be provided as follows:

(a) In the Fire Command Center, where a Fire Command Center is in the building.
(b) At the fire alarm annunciator, where there is no Fire Command Center.
(c) In an appropriately sized and weatherproof fire department access box on the address side of the building, where there is no fire alarm annunciator or Fire Command Center.

In existing buildings, excluding one and two family dwellings, where there are significant upgrades to the building electrical service, such as modifying or replacing the switchgear, a disconnecting means must be provided as for new installations.

17.02.01.11
Section 250.50. Add the following text as the first and second sentence to Section 250.50:
All new structures, both residential and commercial, require a concrete encased electrode to be used as the principle grounding element. The concrete encased electrode must be installed in accordance with 250.52(A)(3) and the reinforcing rods or copper conductors or both utilized in the installation require a minimum of 0.61mm (2 feet) of accessible length after installation.

17.02.01.12
Section 310.5. Delete the first sentence and substitute with the following:
The minimum size of conductors must be as shown in Table 310.5, except that the minimum size of aluminum and copper-clad aluminum conductors must be No. 2. The use of aluminum conductors is limited to service entrance and feeder applications only.

Note: No exceptions to sizes of wire as enumerated here or elsewhere in the code will be allowed in the case of aluminum conductors.

17.02.01.13
Section 410.16(C). Delete and substitute the following:
Suspended Ceilings. All fixtures installed in suspended ceilings must be supported from the building structure directly. If wire is used for this purpose, no less than 2 separate wires of size No. 12 (or larger) steel must be used. These wires must extend from opposite corners of the fixture with each wire independently attached to the building structure.

Exception: If the fixture is circular, and not more than 24 inches in diameter, at least one wire of No. 12 steel or larger must be used to support the fixture.

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17.02.01.14
Section 440.62(C). Delete and substitute the following:
Each individual room air-conditioning unit, regardless of its current rating, must be served by an individual circuit of not less than No. 12 copper wire, and must terminate in a single receptacle.

17.02.01.15
Section 700.18. Add two new paragraphs as follows:
700.18. Any building in which standpipes are installed must have one 30-ampere, 120-volt circuit installed for each standpipe riser, supplied from the emergency panel. The wiring method for exposed work must be galvanized, threaded metal conduit. Boxes must be metal, weatherproof types with gasketed flap-door covers and threaded hubs. The wiring method for concealed work must be metal conduit with appropriate galvanized boxes having gasketed flap-door covers suitable for fire department use. The weatherproof cover must be suitable for receiving the L5-20R NEMA type twist-lock receptacle without damage (e.g., Bell # 128-226 cover or equivalent).

Supply wiring must be at least 75 degrees C-type wire. One single 20-ampere three-wire twistlock receptacle (NEMA L5-20R) must be installed at least as high as, and with a 2-feet offset from EACH HOSE VALVE CONNECTION. Each outlet box must be painted "fire-alarm red" in color and be marked "Only for Fire Department Use."

Note: This Section supersedes the requirements of Table 210.21(B) (2).

17.02.01.16
Electrical Maintenance Inspection Required
All commercially owned and occupied buildings or structures as defined in the International Energy Conservation Code must have a Maintenance Inspection of the Electrical Service Equipment every three (3) calendar years. The Maintenance Inspection must include Electrical Service Equipment such as all switchgear, bus duct, and feeders that supply power to the structure, and must be performed by a Master Electrician licensed by Montgomery County. The Master Electrician must promptly prepare a written Maintenance Inspection report, identifying the equipment inspected and the condition to be corrected or repaired, and deliver a copy to the Building Owner within 10-days of the date of inspection. Any deficiencies in the Electrical Service Equipment must be corrected or repaired within 60 days of receipt of the Maintenance Inspection report. A copy of the Maintenance Inspection report must be made available to the Department of Permitting Services upon request.

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17.02.01.17 Severability

The provisions of these regulations are severable. If a court of competent jurisdiction holds that a provision is invalid or inapplicable, the remainder of the regulation remains in effect.

Isiah Leggett, County Executive

July 12, 2016
Date

Approved as to form and legality:

Office of the County Attorney

11 July 2016
Date