

1 **NOTICE OF RULE MAKING PROCEEDINGS AND PUBLIC HEARING**

2
3 **NORTH CAROLINA BUILDING CODE COUNCIL**

4
5 **Notice of Rule-making Proceedings** *is hereby given by NC Building Code Council in accordance with*
6 *G.S. 150B-21.5(d).*

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8 **Citation to Existing Rule Affected by this Rule-Making:** *North Carolina Electrical, Energy*
9 *Conservation, Fire, Mechanical, and Plumbing Codes.*

10
11 **Authority for Rule-making:** *G.S. 143-136; 143-138.*

12
13 **Reason for Proposed Action:** *To incorporate changes in the NC State Building Codes as a result of*
14 *rulemaking petitions filed with the NC Building Code Council and to incorporate changes proposed by the*
15 *Council.*

16
17 **Public Hearing:** *Tuesday, September 15, 2015, 9:00AM, NCSU McKimmon Center, 1101 Gorman Street,*
18 *Raleigh, NC 27606. Comments on both the proposed rule and any fiscal impact will be accepted.*

19
20 **Comment Procedures:** *Written comments may be sent to Barry Gupton, Secretary, NC Building Code*
21 *Council, NC Department of Insurance, 322 Chapanoke Road, Suite 200, Raleigh, NC 27603. Comments on*
22 *both the proposed rule and any fiscal impact will be accepted. Comment period expires on October 16,*
23 *2015.*

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25 **Statement of Subject Matter:**

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28 **1. Request by Michael A. Segala, Jr., representing Aquatherm, to amend the 2012 NC Plumbing**
29 **Code, Section 605.4.**

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31 **605.4.1. Aquatherm green pipe with blue strip (SDR 11) shall be allowed in the North Carolina Plumbing**
32 **Code for cold water potable water system applications including inside the building.**

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34 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
35 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

36 Reason Given – The purpose of this amendment is to reduce the requirement for cold water potable water
37 applications, including inside the building.

1 Fiscal Statement – This rule is anticipated to provide equivalent compliance with a small decrease in cost.
 2 This rule is not expected to either have a substantial economic impact or increase local and state funds. A
 3 fiscal note has not been prepared.

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5 **2. Request by Jeff Tiller, representing Appalachian State University, to amend the 2012 NC Energy**
 6 **Conservation Code, Table 502.1.2.**

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8 Revised U-factor table less American Wood Council items (indicated as “Other proposal” below)

9 **TABLE 502.1.2**

10 **BUILDING ENVELOPE REQUIREMENTS OPAQUE ELEMENT, MAXIMUM U-FACTORS**

Climate Zone	3		4		5	
	All Other	Group R	All Other	Group R	All Other	Group R
Roofs						
X Insulation entirely above deck	U-0.039	U-0.039	U-0.032	U-0.032	U-0.032	U-0.032
Metal buildings	U-0.041	U-0.041	U-0.037	U-0.037	U-0.037	U-0.037
Attic and other-wood framing	U-0.027	U-0.041 U-0.027	U-0.021 U-0.024	U-0.021 U-0.024	U-0.021 U-0.024	U-0.021 U-0.024
Attic and other – steel framing	U-0.035	U-0.035	U-0.029	U-0.029	U-0.029	U-0.029
Walls, Above Grade						
Mass	U-0.123	U-0.104	U-0.104	U-0.090	U-0.090	U-0.060 U-0.071
Metal building	U-0.094	U-0.072	U-0.060	U-0.050	U-0.050	U-0.050
Metal framed	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal
Wood framed and other	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal	Other proposal
Walls, Below Grade						
Below-grade wall ^a	C-0.119	C-0.119	C-0.119	C-0.092	C-0.119	C-0.092
Floors						
Mass	U-0.064	U-0.064	U-0.057	U-0.051	U-0.057	U-0.051
Joist / Framing-wood	U-0.033	U-0.033	U-0.027 U-0.026	U-0.027 U-0.026	U-0.027 U-0.026	U-0.027 U-0.026
Joist / Framing-steel	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032	U-0.032
Slab-on-Grade Floors						
Unheated slabs	F-0.730	F-0.540	F-0.520	F-0.520	F-0.520	F-0.510
Heated slabs	F-0.860	F-0.860	F-0.688 F-0.843	F-0.688	F-0.688	F-0.688

1 a. When heated slabs are placed below-grade, below grade walls must meet the *F*-factor requirements for
2 perimeter insulation according to the heated slab-on-grade construction.

3
4 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
5 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

6 Reason Given – This purpose of this proposal is to coordinate the U-factor table with the R-value table.

7 Fiscal Statement – This rule is anticipated to provide equivalent compliance with no net decrease/increase
8 in cost. This rule is not expected to either have a substantial economic impact or increase local and state
9 funds. A fiscal note has not been prepared.

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12 **3. Request by Wayne Hamilton, representing NC Fire Service Code Revision Committee, to amend**
13 **the 2012 NC Fire Code, Section 505.1.1.**

14
15 **505.1.1 Suite/Room identification.** Where numerical addresses are posted to identify suites or rooms
16 within buildings, the first digit of the suite or room numbering scheme shall match the floor numerical
17 identification signage.

18
19 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
20 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

21 Reason Given – This proposal is to require the first digit of room or suite numbering to match floor
22 numbering. This will allow emergency personnel to respond more quickly to the correct floor level.

23 Fiscal Statement – This rule is anticipated to provide equivalent compliance with no net decrease/increase
24 in cost. This rule is not expected to either have a substantial economic impact or increase local and state
25 funds. A fiscal note has not been prepared.

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28 **4. Request by Wayne Hamilton, representing NC Fire Service Code Revision Committee, to amend**
29 **the 2012 NC Fire Code, Section 902.1.**

30
31 **Section 902 Definitions**

32 **Night Club.** ~~An establishment meeting all of the following~~ An A-2 occupancy meeting all of the following
33 conditions:

34 1. ~~Has a posted capacity or occupant load that exceeds one occupant per 15 square foot (1.39m²) net~~ The
35 aggregate floor area of concentrated use and standing space that is used for dancing and/or viewing of
36 performers exceeds 10 percent of the Group A-2 fire area, excluding adjacent lobby areas ; and

37 2. Provides live or recorded entertainment by performing artist; and

1 3. ~~Serves~~ Allows alcoholic beverages consumption.

2
3 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
4 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

5 Reason Given – This proposal clarifies the existing code definition for a night club. The proposed
6 definition gives the designer and code official more clarity as when to classify A-2 occupancy as a night
7 club for the purpose of requiring sprinklers.

8 Fiscal Statement – This rule is anticipated to provide equivalent compliance with no net decrease/increase
9 in cost. This rule is not expected to either have a substantial economic impact or increase local and state
10 funds. A fiscal note has not been prepared.

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13 **5. Request by Robert Privott, representing NC Home Builders Association, to amend the 2012 NC**
14 **Mechanical Code, Section 312.1.**

15
16 **312.1 Load calculations.** Heating and cooling system design loads for the purpose of sizing systems,
17 appliances and *equipment* shall be determined in accordance with the procedures described in the
18 ASHRAE/ACCA Standard 183. Alternatively, design loads shall be determined by an *approved* equivalent
19 computation procedure, using the design parameters specified in Chapter 3 of the *International Energy*
20 *Conservation Code*.

21
22 For one- and two-family dwellings and townhouses, heating and cooling equipment shall be sized in
23 accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J,
24 or other approved heating and cooling calculation methodologies.

25
26 For permitting, inspections, certificate of compliance or certificate of occupancy, verification of
27 Calculations for HVAC Systems - ACCA Manual D, ACCA Manual J nor ACCA Manual S calculation
28 submittals and review shall not be required

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30 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
31 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

32 Reason Given – Requirements by local jurisdictions for load calculations for HVAC systems delays
33 construction which adds unnecessary costs to construction projects.

34 Fiscal Statement – This rule is anticipated to provide equivalent compliance with no net decrease/increase
35 in cost. This rule is not expected to either have a substantial economic impact or increase local and state
36 funds. A fiscal note has not been prepared.

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2 **6. Request by Cindy Register, representing NC Building Code Council, Electrical Committee, to**
3 **adopt the 2014 NEC with the following amendments.**

4
5 **Proposed North Carolina Amendments to 2014 NEC**
6 **Prepared by Electrical Adhoc Committee – August 31, 2014**

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8
9 **Item 6.1: Retain language from 2011 NEC for 110.26 (E) (2) – No Cost Impact**

10
11 ~~(2) Outdoor. Outdoor installations shall comply with 110.26(E)(2)(a) and (b).~~

12 ~~(a) Installation Requirements. Outdoor electrical equipment shall be installed in suitable enclosures and~~
13 ~~shall be protected from accidental contact by unauthorized personnel, or by vehicular traffic, or by~~
14 ~~accidental spillage or leakage from piping systems. The working clearance space shall include the zone~~
15 ~~described in 110.26(A). No architectural appurtenance or other equipment shall be located in this zone.~~

16 ~~(b) Dedicated Equipment Space. The space equal to the width and depth of the equipment, and extending~~
17 ~~from grade to a height of 1.8 m (6 ft) above the equipment, shall be dedicated to the electrical installation.~~
18 ~~No piping or other equipment foreign to the electrical installation shall be located in this zone.~~

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21 **Item 6.2: Retain Existing NC Electrical Code Amendment to 210.8(A) (3) – No Cost Impact**

22
23 **210.8 (A) (3) Outdoors**

24 *Exception No. 1 to (3): Receptacles that are not readily accessible and are supplied by a branch circuit*
25 *dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to*
26 *be installed in accordance with 426.28 or 427.22, as applicable.*

27 *Exception No. 2 to (3): A single outlet receptacle supplied by a dedicated branch circuit which is located*
28 *and identified for specific use by a sewage lift pump.*

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31 **Item 6.3: Retain language from 2011 NEC for 210.8(A) (7) – No Cost Impact**

32
33 **210.8(A) (7) Sinks — located in areas other than kitchens where receptacles are installed within 1.8 m (6**
34 **ft) of the outside edge of the sink.**

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1 **Item 6.4: Remove GFCI requirement for kitchen dishwasher branch circuit. This was not a**
2 **requirement in the 2011 NEC. – No Cost Impact**

3
4 ~~**210.8 (D) Kitchen Dishwasher Branch Circuit.** GFCI protection shall be provided for outlets that supply~~
5 ~~dishwashers installed in dwelling unit locations.~~

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8 **Item 6.5: Retain location requirements from 2011 NEC for AFCI Protection and remove term**
9 **“readily”. – No Cost Impact**

10
11 **210.12 Arc-Fault Circuit-Interrupter Protection.** Arc-fault circuit-interrupter protection shall be
12 provided as required in 210.12(A) (B), and (C). The arc-fault circuit interrupter shall be installed in an
13 ~~readily~~ accessible location.

14 **(A) Dwelling Units.** All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or
15 devices installed in dwelling unit ~~kitchens~~, family rooms, dining rooms, living rooms, parlors, libraries,
16 dens, bedrooms, sunrooms, recreation rooms, closets, hallways, ~~laundry areas~~, or similar rooms or areas
17 shall be protected by any of the means described in 210.12(A)(1) through (6):

18
19 (1) A listed combination-type arc-fault circuit interrupter, installed to provide protection of the entire
20 branch circuit

21
22 (2) A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a
23 listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch
24 circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the
25 circuit.

26
27 (3) A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in
28 combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet
29 box on the branch circuit where all of the following conditions are met:

30 a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet
31 branch-circuit arc-fault circuit interrupter.

32 b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first
33 outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.

34 c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

35

1 (4) A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the branch
2 circuit in combination with a listed branch-circuit overcurrent protective device where all of the following
3 conditions are met:

- 4 a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet
5 branch-circuit arc-fault circuit interrupter.
- 6 b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first
7 outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.
- 8 c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.
- 9 d. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be
10 identified as meeting the requirements for a system combination–type AFCI and shall be listed as such.

11
12 (5) If RMC, IMC, EMT, Type MC, or steel-armored Type AC cables meeting the requirements of 250.118,
13 metal wireways, metal auxiliary gutters, and metal outlet and junction boxes are installed for the portion of
14 the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to
15 install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining
16 portion of the branch circuit.

17
18 (6) Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 50
19 mm (2 in.) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device
20 and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet
21 to provide protection for the remaining portion of the branch circuit.

22 *Exception: Where an individual branch circuit to a fire alarm system installed in accordance with*
23 *760.41(B) or 760.121(B) is installed in RMC, IMC, EMT, or steel sheathed cable, Type AC or Type MC,*
24 *meeting the requirements of 250.118, with metal outlet and junction boxes, AFCI protection shall be*
25 *permitted to be omitted.*

26
27 Informational Note No. 1: For information on combination-type and branch/feeder-type arc-fault circuit
28 interrupters, see UL 1699-2011, *Standard for Arc-Fault Circuit Interrupters*. For information on outlet
29 branch circuit type arc-fault circuit interrupters, see UL Subject 1699A, *Outline of Investigation for Outlet*
30 *Branch Circuit Arc-Fault Circuit-Interrupters*. For information on system combination AFCIs, see UL
31 Subject 1699C, *Outline of Investigation for System Combination Arc-Fault Circuit Interrupters*.

32
33 Informational Note No. 2: See 29.6.3(5) of *NFPA 72-2013, National Fire Alarm and Signaling Code*, for
34 information related to secondary power-supply requirements for smoke alarms installed in dwelling units.

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36 Informational Note No. 3: See 760.41(B) and 760.121(B) for power-supply requirements for fire alarm
37 systems.

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Item 6.6: Remove exception for 6’ extension at 210.12 (B). – No Cost Impact

(B) Branch Circuit Extensions or Modifications — Dwelling Units. In any of the areas specified in 210.12(A), where branch-circuit wiring is modified, replaced, or extended, the branch circuit shall be protected by one of the following:

- (1) A listed combination-type AFCI located at the origin of the branch circuit
- (2) A listed outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit

Exception: AFCI protection shall not be required where the extension of the existing conductors is not more than 1.8 m (6 ft) and does not include any additional outlets or devices.

Item 6.7: Revise to reflect NC Electrical Code Amendment with January 1, 2015 effective date. - No Cost Impact

210.52 (I) Foyers. Foyers that are not part of a hallway in accordance with 210.52(H) and that have an area that is greater than 5.6 m² (60 ft²) shall have at least one receptacle(s) ~~located in each wall space 900 mm (3 ft) or more in width. Doorways, door side windows that extend to the floor, and similar openings shall not be considered wall space.~~

Item 6.8: Retain Existing NC Electrical Code Amendment to 250.50 – No Cost Impact

250.50 Grounding Electrode System. All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are available ~~present~~ at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used.

Item 6.9: Modify 250.53 (A) (2) to match D-1 Agenda Item – No Cost Impact

250.53 (A) (2)

1 Exception No. 1: If a single, rod, pipe, or plate grounding electrode has a resistance to earth of 25 ohms or
2 less, the supplemental electrode shall not be required.

3
4 Exception No. 2: The supplemental ground electrode shall not be required at temporary electrical service
5 installation (saw service pole) at construction site for one and two-family residences, provided the
6 temporary electrical service does not exceed 150 volts to ground or 100A.

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9 **Item 6.10: Retain Table and Language of 2011 NEC related to sizing of Dwelling Services and**
10 **Feeders – No Cost Impact**

11
12 **310.15 (B) (7) 120/240-Volt, Single-Phase Dwelling Services and Feeders.**

13 For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings,
14 service and feeder conductors supplied by a single-phase, 120/240-volt system shall be permitted be sized
15 in accordance with 310.15(B)(7)(1) through (4).

16 ~~(1) For a service rated 100 through 400 A, the service conductors supplying the entire load associated with~~
17 ~~a one-family dwelling, or the service conductors supplying the entire load associated with an individual~~
18 ~~dwelling unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than~~
19 ~~83 percent of the service rating.~~

20 ~~(2) For a feeder rated 100 through 400 A, the feeder conductors supplying the entire load associated with a~~
21 ~~one-family dwelling, or the feeder conductors supplying the entire load associated with an individual~~
22 ~~dwelling, unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than~~
23 ~~83 percent of the feeder rating.~~

24 ~~(3) In no case shall a feeder for an individual dwelling unit be required to have an ampacity greater than~~
25 ~~that specified in 310.15(B)(7)(1) or (2).~~

26 ~~(4) Grounded conductors shall be permitted to be sized smaller than the ungrounded conductors, provided~~
27 ~~that the requirements of 220.61 and 230.42 for service conductors or the requirements of 215.2 and 220.61~~
28 ~~for feeder conductors are met.~~

29 ~~Informational Note No. 1: The conductor ampacity may require other correction or adjustment factors~~
30 ~~applicable to the conductor installation.~~

31 ~~Informational Note No. 2: See Example D7 in Annex D.~~

32
33 **Delete Example D7 in 2014 NEC**

34
35 **Replace with 2011 NEC text & table:**

36

1 **310.15 (B) (7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.** For individual
 2 dwelling units of one-family, two-family, and multifamily dwellings, conductors, as listed in Table
 3 310.15(B)(7), shall be permitted as 120/240-volt, 3-wire, single-phase service-entrance conductors, service-
 4 lateral conductors, and feeder conductors that serve as the main power feeder to each dwelling unit and are
 5 installed in raceway or cable with or without an equipment grounding conductor. For application of this
 6 section, the main power feeder shall be the feeder between the main disconnect and the panelboard that
 7 supplies, either by branch circuits or by feeders, or both, all loads that are part or associated with the
 8 dwelling unit. The feeder conductors to a dwelling unit shall not be required to have an allowable ampacity
 9 rating greater than their service-entrance conductors. The grounded conductor shall be permitted to be
 10 smaller than the ungrounded conductors, provided the requirements of 215.2, 220.61, and 230.42 are met.
 11

**Table 310.15(B)(7) Conductor Types and Sizes for
 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and
 Feeders. Conductor Types RHH, RHW, RHW-2, THHN,
 THHW, THW, THW-2, THWN, THWN-2, XHHW,
 XHHW-2, SE, USE, USE-2**

Service or Feeder Rating (Amperes)	Conductor (AWG or kcmil)	
	Copper	Aluminum or Copper-Clad Aluminum
100	4	2
110	3	1
125	2	1/0
150	1	2/0
175	1/0	3/0
200	2/0	4/0
225	3/0	250
250	4/0	300
300	250	350
350	350	500
400	400	600

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15 **Item 6.11: Retain Existing NC Electrical Code Amendment to 334.15 (C) – No Cost Impact**

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334.15 (C) In Unfinished Basements and ~~Crawl Spaces~~. Where cable is run at angles with joists in
 unfinished basements, ~~and crawl spaces~~, it shall be permissible to secure cables not smaller than two 6
 AWG or three 8 AWG conductors directly to the lower edges of the joists. Smaller cables shall be run
 either through bored holes in joists or on running boards. Nonmetallic-sheathed cable installed on the wall
 of an unfinished basement shall be permitted to be installed in a listed conduit or tubing or shall be

1 protected in accordance with 300.4. Conduit or tubing shall be provided with a suitable insulating bushing
2 or adapter at the point the cable enters the raceway. The sheath of the nonmetallic-sheathed cable shall
3 extend through the conduit or tubing and into the outlet or device box not less than 6 mm (1/4 in.). The
4 cable shall be secured within 300 mm (12 in.) of the point where the cable enters the conduit or tubing.
5 Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor
6 complying with the provisions of 250.86 and 250.148.

7
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9 **Item 6.12: Revise to reflect NC Electrical Code Amendment with January 1, 2015 effective date. – No**
10 **Cost Impact**

11
12 **Article 404.2(C)**

13 (8) Where installed in residential one- and two- family dwellings
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16 **Item 6.13: Remove term “readily” from 406.4 (D) and add new exception – No Cost Impact**
17

18 **406.4 (D) Replacements.** Replacement of receptacles shall comply with 406.4(D)(1) through (D)(6), as
19 applicable. Arc-fault circuit-interrupter type and ground-fault circuit-interrupter type receptacles shall be
20 installed in an readily accessible location.

21 **(1) Grounding-Type Receptacles.** Where a grounding means exists in the receptacle enclosure or an
22 equipment grounding conductor is installed in accordance with 250.130(C), grounding-type receptacles
23 shall be used and shall be connected to the equipment grounding conductor in accordance with 406.4(C) or
24 250.130(C).
25

26 **(2) Non–Grounding-Type Receptacles.** Where attachment to an equipment grounding conductor does not
27 exist in the receptacle enclosure, the installation shall comply with (D)(2)(a), (D)(2)(b), or (D)(2)(c).

28 (a) A non–grounding-type receptacle(s) shall be permitted to be replaced with another non–grounding-type
29 receptacle(s).

30 (b) A non–grounding-type receptacle(s) shall be permitted to be replaced with a ground-fault circuit
31 interrupter type of receptacle(s). These receptacles shall be marked “No Equipment Ground.” An
32 equipment grounding conductor shall not be connected from the ground-fault circuit-interrupter-type
33 receptacle to any outlet supplied from the ground-fault circuit-interrupter receptacle.

34 (c) A non–grounding-type receptacle(s) shall be permitted to be replaced with a grounding-type
35 receptacle(s) where supplied through a ground-fault circuit interrupter. Grounding-type receptacles
36 supplied through the ground-fault circuit interrupter shall be marked “GFCI Protected” and “No Equipment

1 Ground.” An equipment grounding conductor shall not be connected between the grounding type
2 receptacles.

3
4 **(3) Ground-Fault Circuit Interrupters.** Ground-fault circuit-interrupter protected receptacles shall be
5 provided where replacements are made at receptacle outlets that are required to be so protected elsewhere
6 in this *Code*.

7 *Exception: Where replacement of the receptacle type is impracticable, such as where the outlet box size*
8 *will not permit the installation of the GFCI receptacle, the receptacle shall be permitted to be replaced*
9 *with a new receptacle of the existing type, where GFCI protection is provided and the receptacle is marked*
10 *“GFCI protected” and “no equipment ground,” in accordance with 406.4(D)(2) (a), (b), or (c).*

11
12 **(4) Arc-Fault Circuit-Interrupter Protection.** Where a receptacle outlet is supplied by a branch circuit
13 that requires arc-fault circuit-interrupter protection as specified elsewhere in this *Code*, a replacement
14 receptacle at this outlet shall be one of the following:

- 15 (1) A listed outlet branch-circuit type arc-fault circuit-interrupter receptacle
16 (2) A receptacle protected by a listed outlet branch-circuit type arc-fault circuit-interrupter type receptacle
17 (3) A receptacle protected by a listed combination type arc-fault circuit-interrupter type circuit breaker

18
19 Exception: Non-grounding type receptacles.

20
21 **(5) Tamper-Resistant Receptacles.** Listed tamper-resistant receptacles shall be provided where
22 replacements are made at receptacle outlets that are required to be tamper-resistant elsewhere in this *Code*.

23
24 **(6) Weather-Resistant Receptacles.** Weather-resistant receptacles shall be provided where replacements
25 are made at receptacle outlets that are required to be so protected elsewhere in this *Code*.

26
27
28 **Item 6.14: For one- and two-family residences, remove term “readily” from 422.5 – No Cost Impact**

29
30 **422.5 Ground-Fault Circuit-Interrupter (GFCI) Protection.** The device providing GFCI protection
31 required in this article shall be readily accessible.

32 Exception: For one- and two-family residences, the device providing the GFCI protection required in this
33 article shall be accessible.

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35
36 **Item 6.15: Retain Existing NC Electrical Code Amendment, Article 10. - No Cost Impact**

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1 **Article 10 - ADMINISTRATIVE SECTION**

2
3 **10.1 TITLE**

4 These Administrative Regulations along with the requirements included in the 2014 Edition of the National
5 Electrical Code (NFPA-70 - 2014) as adopted by the North Carolina Building Code Council on (DATE TO
6 BE DETERMINED), to be effective (DATE TO BE DETERMINED), with the following amendments:

7 **PROVIDE LIST OF ALL NC AMENDMENTS**

8 shall be known as the North Carolina Electrical Code, and may be cited as such or as the State Electrical
9 Code; and will be referred to herein as “the code” or “this code”.

10
11 **10.2 SCOPE**

12 Article 80 Administration and Enforcement of the code is hereby not adopted and does not apply for this
13 code. For Scope and Exceptions to Applicability of Technical Codes, refer to the North Carolina
14 Administrative Code and Policies.

15
16 **10.3 PURPOSE**

17 The purpose of the code is to provide minimum standards, provisions and requirements of safe and stable
18 design, methods of construction and uses of materials in buildings or structures hereafter erected,
19 constructed, enlarged, altered, repaired, moved, converted to other uses of demolished and to regulate the
20 electrical systems, equipment, maintenance, use and occupancy of all buildings or structures. All
21 regulations contained in this code have a reasonable and substantial connection with the public health,
22 safety, morals, or general welfare, and their provisions shall be construed liberally to those ends.

23
24 **10.4 ADMINISTRATION**

25 For administrative regulations pertaining to inspection (rough-ins and finals), permits and Certificates of
26 Electrical Compliance, see local ordinances and the North Carolina Administrative Code and Policies.
27 When the provisions of other codes are determined to be contrary to the requirements of this code, this code
28 shall prevail.

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30 **10.5 DEFINITION**

31 Unless the context indicates otherwise, whenever the word “building” is used in this chapter, it shall be
32 deemed to include the word “structure” and all installations such as plumbing systems, heating systems,
33 cooling systems, electrical systems, elevators and other installations which are parts of, or permanently
34 affixed to, the building or structure.

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36 **10.6 APPLICATION OF CODE TO EXISTING BUILDINGS**

37 For requirements of existing structures, refer to the North Carolina Administrative Code and Policies.

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10.7 SERVICE UTILITIES

10.7.1 Connection of Service Utilities – No person shall make connections from a utility, source of energy, fuel or power to any building or system which is regulated by the technical codes until approved by the Inspection Department and a Certificate of Compliance is issued (General Statute 143-143.2)

10.7.2 Authority to disconnect Service Utilities – The Inspection Department shall have the authority to require disconnecting a utility service to the building, structure or system regulated by the technical codes, in case of emergency or where necessary to eliminate an imminent hazard to life or property. The Inspection Department shall have the authority to disconnect a utility service when a building has been occupied prior to Certificate of Compliance or entry into the building for purposes of making inspections cannot be readily granted. The Inspection Department shall notify the serving utility, and whenever possible the owner or occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant shall be notified in writing within eight (8) working hours (General Statutes 143-143.2, 153A-365, 153A-366, 160A-425 and 160A-426). **NORTH CAROLINA ELECTRICAL CODE, 2014 EDITION**

10.8 TEMPORARY POWER

10.8.1 Scope. The provisions of this section apply to the utilization of portions of the wiring system within a building to facilitate construction.

10.8.2 Provisions for Temporary Power. The Code enforcement official shall give permission and issue a permit to energize the electrical service when the provisions of 10.8 and the following requirements have been met:

- 1) The service wiring and equipment, including the meter socket enclosure, shall be installed, the service wiring terminated, and the service equipment covers installed.
- 2) The portions of the electrical system that are to be energized shall be complete and physically protected.
- 3) The grounding electrode system shall be complete.
- 4) The grounding and the grounded conductors shall be terminated in the service equipment.
- 5) At least one receptacle outlet with ground fault circuit interrupter protection for personnel shall be installed with the circuit wiring terminated.
- 6) The applicable requirements of the North Carolina Electrical Code apply.

10.8.3 Uses Prohibited. In no case shall any portion of the permanent wiring be energized until the portions have been inspected and approved by an electrical Code Enforcement Official. Failure to comply with this section may result in disconnection of power or revocation of permit.

10.8.4 Application for Temporary Power. Application for temporary power shall be made by and in the name of the applicant. The application shall explicitly state the port portions of the energized electrical system, mechanical system, or plumbing system for which application is made, its intended use and duration.

1 **10.8.5 Security and Notification.** The applicant shall maintain the energized electrical system or that
2 portion of the building containing the energized electrical system in a secured and locked manner or under
3 constant supervision to exclude unauthorized personnel. The applicant shall alert personnel working in the
4 vicinity of the energized electrical system to its presence.

5
6 **10.9 Requirements of Other State Agencies, Occupational Licensing Boards, or Commissions**

7 The North Carolina State Building Codes do not include all additional requirements for buildings and
8 structures that may be imposed by other State agencies, occupational licensing boards, and commissions. It
9 shall be the responsibility of a permit holder, design professional, contractor, or occupational license holder
10 to determine whether any additional requirements exist.

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12
13 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is March 1,
14 2016 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1, 2017).

15 Reason Given – This purpose of this proposal is to update the NC Electrical Code to the latest NEC edition.
16 The 2014 NEC is the latest published edition and represents national industry and life-safety updates. The
17 NEC is amended and published every three years through a consensus process.

18 Fiscal Statement – This rule is expected to have a substantial economic impact. This rule is not expected to
19 increase local and state funds. A fiscal note has been prepared and is posted at the following link:

20 [http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=BCC -](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=BCC_-_Minutes&user=Building_Code_Council&sub=BCC_Meeting)
21 [Minutes&user=Building Code Council&sub=BCC Meeting](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=BCC_-_Minutes&user=Building_Code_Council&sub=BCC_Meeting)

22
23 **2014 NEC – View Only**

24 <https://archive.org/details/nfpa.nec.2014>

25
26
27 **NOTICE:**

28 **Appeals and Interpretations** of the North Carolina State Building Codes are published online at the
29 following link.

30 [http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code Interpretations&user=C](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Interpretations&user=Code_Enforcement_Resources)
31 [ode Enforcement Resources](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Interpretations&user=Code_Enforcement_Resources)

32
33
34 **NOTICE:**

35 **Objections and Legislative Review** requests may be made to the NC Office of Administrative Hearings in
36 accordance with G.S. 150B-21.3(b2) after Rules are adopted by the Building Code Council.

37 <http://www.ncoah.com/rules/>