

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

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3   **NORTH CAROLINA BUILDING CODE COUNCIL**

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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 and Plumbing Code*  
9     *amendments.*

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

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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.*

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17    **Public Hearing:** *Tuesday, June 13, 2017, 9:00AM, Albemarle Building, 325 North Salisbury Street,*  
18    *Raleigh, NC 27603, 2<sup>nd</sup> Floor Hearing Room 231. Comments on both the proposed rule and any fiscal*  
19    *impact will be accepted.*

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21    **Comment Procedures:** *Written comments may be sent to Barry Gupton, Secretary, NC Building Code*  
22    *Council, NC Department of Insurance, 1202 Mail Service Center, Raleigh, NC 27699-1202. Comments on*  
23    *both the proposed rule and any fiscal impact will be accepted. Comment period expires on July 14, 2017.*

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25    **Statement of Subject Matter:**

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28    **1. Request by Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEI, to amend the**  
29    **2014 NC Electrical Code, Section 300.3 (B) (5) as follows:**

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31    **300.3 Conductors**

32    **(B) Conductors of the Same Circuit.** All conductors of the same circuit and, where used, the grounded  
33    conductor and all equipment grounding conductors and bonding conductors shall be contained within the  
34    same raceway, auxiliary gutter, cable tray, cablebus assembly, trench, cable, or cord, unless otherwise  
35    permitted in accordance with 300.3(B) (1) through (B) (4).

36    **(1) Paralleled Installations.** Conductors shall be permitted to be run in parallel in accordance with the  
37    provisions of 310.10(H). The requirement to run all circuit conductors within the same raceway, auxiliary

1 gutter, cable tray, trench, cable, or cord shall apply separately to each portion of the paralleled installation,  
2 and the equipment grounding conductors shall comply with the provisions of 250.122. Parallel runs in cable  
3 tray shall comply with the provisions of 392.20(C).

4 *Exception: Conductors installed in nonmetallic raceways run underground shall be permitted to be*  
5 *arranged as isolated phase installations. The raceways shall be installed in close proximity, and the*  
6 *conductors shall comply with the provisions of 300.20(B).*

7 **(2) Grounding and Bonding Conductors.** Equipment grounding conductors shall be permitted to be  
8 installed outside a raceway or cable assembly where in accordance with the provisions of 250.130(C) for  
9 certain existing installations or in accordance with 250.134(B), Exception No. 2, for dc circuits. Equipment  
10 bonding conductors shall be permitted to be installed on the outside of raceways in accordance with  
11 250.102(E).

12 **(3) Nonferrous Wiring Methods.** Conductors in wiring methods with a nonmetallic or other nonmagnetic  
13 sheath, where run in different raceways, auxiliary gutters, cable trays, trenches, cables, or cords, shall  
14 comply with the provisions of 300.20(B). Conductors in single-conductor Type MI cable with a  
15 nonmagnetic sheath shall comply with the provisions of 332.31. Conductors of single-conductor Type MC  
16 cable with a nonmagnetic sheath shall comply with the provisions of 330.31, 330.116, and 300.20(B).

17 **(4) Enclosures.** Where an auxiliary gutter runs between a column-width panelboard and a pull box, and the  
18 pull box includes neutral terminations, the neutral conductors of circuits supplied from the panelboard shall  
19 be permitted to originate in the pull box.

20 **(5) Existing Dwelling Panelboards.** An equipment grounding conductor for an existing one-and two-  
21 family dwelling shall be permitted to be installed separately and outside of the raceway or cable assembly  
22 where all the following conditions apply:

23 (a) When relocating or installing an additional service disconnecting means;

24 (b) Enacting 300.3(B)(5)(a) redefines the existing service entrance conductors as a feeder in Article 100;  
25 and

26 (c) Replacement of the existing service entrance conductors requires the removal of the building finish or  
27 deemed impractical by the AHJ.

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29 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
30 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
31 2019).

32 Reason Given – This purpose of this amendment is to allow alternate provisions be made in lieu of  
33 replacing the existing 3-wire service entrance conductors that are redefined as a feeder when an existing  
34 main service disconnecting means is relocated.

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

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3 **2. Request from Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEL, to amend the**  
4 **2014 NC Electrical Code, Section 250.140, Exceptions 1 & 2 as follows:**

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6 **250.140 Frames of Ranges and Clothes Dryers.** Frames of electric ranges, wall-mounted ovens, counter-  
7 mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the circuit for these  
8 appliances shall be connected to the equipment grounding conductor in the manner specified by 250.134 or  
9 250.138.

10 *Exception No. 1: For existing branch-circuit installations only where an equipment grounding conductor is*  
11 *not present in the outlet or junction box, the frames of electric ranges, wall-mounted ovens, counter*  
12 *mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the circuit for these*  
13 *appliances shall be permitted to be connected to the grounded circuit conductor if all the following*  
14 *conditions are met.*

15 *(1) The supply circuit is 120/240-volt, single phase, 3 wire; or 208Y / 120-volt derived from a 3-phase, 4*  
16 *wire, wye-connected system.*

17 *(2) The grounded conductor is not smaller than 10 AWG copper or 8 AWG aluminum.*

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19 *(3) Any of the following:*

20 *a) The grounded conductor is insulated;*

21 *b) The grounded conductor is uninsulated and part of a Type SE service-entrance cable and the branch*  
22 *circuit originates at the service.*

23 *c) The grounded conductor is uninsulated and part of a cable assembly and all current-carrying*  
24 *conductors are protected by a ground fault circuit interrupter at the origination of the branch circuit; or*

25 *d) A new 3-wire cable assembly not smaller than the existing conductors shall be permitted to be extended*  
26 *from the service to an enclosure where the existing conductors shall be spliced together and provisions are*  
27 *made so that the grounded conductors are insulated by tape, heat-shrink or other approved means inside*  
28 *the enclosure.*

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30 *(4) Grounding contacts of receptacles furnished as part of the equipment are bonded to the equipment.*

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32 *Exception No. 2: For existing branch-circuit installations only where an equipment grounding conductor is*  
33 *not present in the outlet or junction box, an equipment grounding conductor sized in accordance with*  
34 *250.122 shall be permitted to be run separately from the circuit conductors.*

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1 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
2 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
3 2019).

4 Reason Given – This purpose of this amendment is to allow alternate provisions be made in lieu of  
5 replacing the existing 3-wire feeder to the range and dryer, or their outlets, when an existing main service  
6 disconnecting means is relocated.

7 Fiscal Statement – This rule is anticipated to provide equivalent compliance with a minimal decrease in  
8 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 from Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEEI, to amend the**  
13 **2014 NC Electrical Code, Section 250.142 (B) as follows:**

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15 **250.142 Use of Grounded Circuit Conductor for Grounding Equipment.**

16 **(B) Load-Site Equipment.** Except as permitted in 250.30(A)(1) and 250.32(B) Exception, a grounded  
17 circuit conductor shall not be used for grounding non-current carrying metal parts of equipment on the load  
18 side of the service disconnecting means or on the load side of a separately derived system disconnecting  
19 means or the overcurrent devices for a separately derived system not having a main disconnecting means.

20 *Exception No. 1: The frames of ranges, wall-mounted ovens, counter-mounted cooking units, and clothes*  
21 *dryers under the conditions permitted for existing installations by 250.140 shall be permitted to be*  
22 *connected to the grounded circuit conductor.*

23 *Exception No. 2: It shall be permissible to ground meter enclosures by connection to the grounded circuit*  
24 *conductor on the load side of the service disconnect where all of the following conditions apply:*

25 *(1) No service ground-fault protection is installed.*

26 *(2) All meter enclosures are located immediately adjacent to the service disconnecting means.*

27 *(3) The size of the grounded circuit conductor is not smaller than the size specified in Table 250.122 for*  
28 *equipment grounding conductors.*

29 *Exception No. 3: Direct-current systems shall be permitted to be grounded on the load side of the*  
30 *disconnecting means or overcurrent device in accordance with 250.164.*

31 *Exception No. 4: Electrode-type boilers operating at over 1000 volts shall be grounded as required in*  
32 *490.72(E)(1) and 490.74.*

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34 *Exception No. 5: It shall be permissible to ground an existing panelboard enclosure by connection to the*  
35 *grounded circuit conductor for a one- and two-family dwelling where all the following conditions apply:*

36 *(1) When relocating or installing an additional main disconnecting means;*

1 (2) Enacting 250.142(B) Exception No. 5: (1) redefines the existing service entrance conductors as a feeder  
2 in Article 100;

3 (3) An equipment grounding conductor in the existing panelboard is not present;

4 (4) Replacement of the existing service entrance conductors requires either the removal of the building  
5 finish or deemed impractical by the AHJ;

6 (5) All grounding electrode conductors are removed completely from the existing panelboard; and

7 (6) The grounded conductors are insulated by tape, heat-shrink, or other approved means except where  
8 covered by the sheathing of a cable assembly or as needed for joints, splices, and termination purposes.

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10 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
11 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
12 2019).

13 Reason Given – This purpose of this amendment is to allow alternate provisions be made in lieu of  
14 replacing the existing 3-wire service entrance conductors that are redefined as a feeder when an existing  
15 main service disconnecting means is relocated.

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

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21 **4. Request from Robert D. Richardson, representing Professional Trade Manufacturing, LLC, to**  
22 **amend the 2012 NC Plumbing Code, Section 305.6 as follows:**

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24 305.6 FREEZING. The top of water pipes, installed below grade outside the building, shall be below the  
25 frost line or a minimum of 12 inches (305mm) below finished grade, whichever is greater. Water pipes  
26 installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. Water  
27 piping components and appurtenances installed in an unconditioned attic or unconditioned utility room or  
28 unconditioned garage or crawl space shall have insulation with a minimum R-factor of 6.5 determined at 75  
29 degrees F (24 C) in accordance with ASTM C-177.

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31 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
32 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
33 2019).

34 Reason Given – This purpose of this amendment is to clarify that piping includes components and  
35 appurtenances and that insulation of piping is required in all unconditioned spaces.

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

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6 **5. Request from Terry Cromer, representing NC Association of Electrical Contractors, to amend the**  
7 **2014 NC Electrical Code, Article 250.53(A)(2) Supplemental Electrode Required:**

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9 **(2) Supplemental Electrode Required.**

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

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14 *Exception No. 2: The supplemental ground electrode shall not be required at temporary electrical service*  
15 *installation (saw service pole) at a construction site ~~for one and two family residences, provided the~~*  
16 *~~temporary electrical service does not exceed 150 volts to ground or 100A.~~ provided all ungrounded circuits*  
17 *do not exceed 150 volts to ground, and the rating of the single disconnecting means or the summation of*  
18 *the ratings of multiple overcurrent devices that serve together as the disconnecting means, does not exceed*  
19 *100 amperes.*

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21 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
22 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
23 2019).

24 Reason Given – This purpose of this amendment is for clarification of existing language.

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

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30 **6. Request from Terry Cromer, representing NC Association of Electrical Contractors, to amend the**  
31 **2014 NC Electrical Code, Article 300.9 Raceways in Wet Locations Above Grade:**

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33 **300.9 Raceways in Wet Locations Above Grade.**

34 Where raceways are in wet locations above grade, the interior of these raceways shall be considered to be a  
35 wet location. Insulated conductors and cables installed in raceway in wet locations above grade shall  
36 comply with 310.10(C).

37 **Exception:** The raceway shall not be considered a wet location if:

1 (1) The section of raceway routed in a wet location above grade does not exceed ~~1500 mm (5 ft)~~  
2 1.8 m (6 ft) in length;

3 (2) Any fittings or conduit bodies are watertight and listed for use in wet locations; and

4 ~~(3) Raceway is open at its termination point in a dry location.~~

5 (3) All termination points of the raceway are only open in any of the following:

6 a. a dry location;

7 b. equipment suitable for outdoor use

8 c. equipment listed for use in a wet location.

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10 **Motion/Second/Approved** – The request was granted. The proposed effective date of this rule is  
11 December 1, 2017 (earliest through RRC), unless the BCC assigns a delayed effective date (January 1,  
12 2019).

13 Reason Given – This purpose of this amendment is for clarification of existing language.

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

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19 **NOTICE:**

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

22 [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=C)  
23 [ode Enforcement Resources](#)

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26 **NOTICE:**

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

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

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