AGENCY: Building Code Council

RULE CITATION: 2017 Electrical Code, 210.8

DEADLINE FOR RECEIPT: Monday, April 8, 2019

<u>PLEASE NOTE:</u> This request may extend to several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In Exception 2, what is "easily moved"? Does your regulated public know? (I realize that "readily accessible" is defined in Article 100)

2017 NC Electrical Code 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. (180612 Item B-10)

210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.

(A) Dwelling Units. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in 210.8 (A)(1) through (10) shall have ground-fault circuit-interrupter protection for personnel.

(1) Bathrooms

(2) Garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use

Exception No. 1 to (2): Receptacles that are not readily accessible.

Exception No. 2 to (2): A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.10(A)(6), (A)(7), or (A)(8). Receptacles installed under the exceptions to 210.8(A)(2) shall not be considered as meeting the requirements of 210.52(G)

AGENCY: Building Code Council

RULE CITATION: 2017 Electrical Code, Table 300.5

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

I am just checking – there are several typographical errors wherein the number "1" was added to words (see Note 1). I take it this is due to the conversion of the document and the errors will not appear in the Code?

2017 NC Electrical Code Table 300.5 Minimum Cover Requirements. (180612 Item B-11)

(SEE ATTACHED TABLE 300.5)

		Ту	pe or Wiri	ng Metho	od or Circui	it					
Location of Wiring Method	Colur Direct Cable Condu	Column 1 Direct Burial Cables or Conductors		Column 2 Rigid Metal Conduit or Intermediate Metal Conduit		Column 3 Nonmetallic Raceways Listed for Direct Burial Without Concrete Encasement or Other Approved Raceways		Column 4 Residential Branch Circuits Rated 420 125/250 Volts or Less with GFCI Protection and Maximum Overcurrent Protection of 20 50 Amperes		Column 5 Circuits for Control or Irrigation and Landscape Lighting Limited to Not More Than 30 Volts und Installed with Type UF or in Other Identified Cable or Raceway	
or Circuit	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	
All locations not specified- below	600	24	150	6	450	18	300.	12	150	6	
In trench below 50 mm (2 in.) thick concrete or e4uivalcn1	450	18	150	6	300	12	150	6	150	6	
Under a building	0 0 (in raceway or Type MC or Type Ml cable identified for direct burial)		0	0	0	0	0 0 (in raceway or Type MC or Type MI cable identified for direct burial)		0 0 (in raceway or Type MC or Type MI cable identified for direct burial)		
Under minimum of 102 mm (4 in.) thick concrete exterior slab with no vehicular traffic and the slab extending not less than 152 mm (6in) beyond the underground installation	450	18	100	4	100	4	150 (direct 100 (in rac	6 burial) 4 eway)	150 (d1rcc1 100 (in rac	6 burial) 4 ceway)	
Under streets, highways. mads. alleys. driveways, und parking lots	600	24	600	24	600	24	600	24	600	24	
One- and two-family dwelling driveways and outdoor parking areas. and used only for dwelling-related purposes	450	18	450	18	450	18	300	12	450	18	
In or under airport runways, including adjacent areas where trespassing prohibited	450	18	450	18	450	18	450	18	450	18	

Table 300.5 Minimum Cover Requirements, 0 to 1000 Volts, Nominal, Burial in Millimeters (Inches)

Notes:

1. Cover is defined as the shnrtcs1 dis1 ance in millimeters (inches) measured between a point on the top

Surfaces Of any direct-hurled conductor. cable, conduit.or other raceway and the lopsurface of finished grade, concrete. or similar cover.
Raceways approved for burial only where concrete encased shall require concrete envelope not less than 50 mm (2in) thick.

3. Lesser depths shall be permitted where cables and conductors rise for termations or splices or where access is otherwise required.

 Where one of the wring method types listed in Columns 1 through 3 is used for one of the circuit types in Columns 4 and 5, the shallowest depth of burial shall be permitted.
Where solid rock prevents compliance with the cover depths specified in this table, the wiring shall be installed in metal or nonmetallic raceway permitted for direct burial. The raceways shall be covered by a minimum of 50 mm (2 in.) of concrete extending down to rock.

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2018 NC Building Code 1705.4 Masonry construction. (180612 Item B-2)

1705.4 Masonry construction.

Exception: Special inspections and tests shall not be required for: 4. Non-load bearing masonry partition walls and screens as determined and designated as such by the registered design professional in or added to the construction documents.

2018 NC Fire Code 404.2.3 Lockdown plans. (180612 Item B-9)

404.2.3 Lockdown plans. Where facilities develop a lockdown plan, it shall be in accordance with Sections 404.2.3.1 through 404.2.3.3.

404.2.3.1 Lockdown plans contents. Lockdown plans shall be *approved* by the *fire code official* and shall include the following:

1. Initiation. The plan shall include instructions for reporting an emergency that requires a lockdown. 2. Accountability. The plan shall include accountability procedures for staff to report the presence or absence of occupants.

3. Recall. The plan shall include a prearranged signal for returning to normal activity.

4. Communications and coordination. The plan shall include an approved means of two way communication between a central location and each secured area.

404.2.3 Lockdown plans. Lockdown plans shall only be permitted where such plans are approved by the *fire code official* and are in compliance with Sections 404.2.3.1 and 404.2.3.2.

404.2.3.1 Lockdown plan contents. Lockdown plans shall include the following:

1. Identification of individuals authorized to issue a lockdown order.

2. Security measures used during normal operations, when the building is occupied, that could adversely affect egress or fire department operations.

3. A description of identified emergency and security threats addressed by the plan, including specific lockdown procedures to be implemented for each threat condition.

4. Means and methods of initiating a lockdown plan for each threat, including:

4.1. The means of notifying occupants of a lockdown event, which shall be distinct from the fire alarm signal.

4.2. Identification of each door or other access point that will be secured.

4.3. A description of the means or methods used to secure doors and other access points.

4.4. A description of how locking means and methods are in compliance with the requirements of this code for egress and accessibility.

5. Procedures for reporting to the fire department any lockdown condition affecting egress or fire department operations.

6. Procedures for determining and reporting the presence or absence of occupants to emergency response agencies during a lockdown.

7. Means for providing two-way communication between a central location and each area subject to being secured during a lockdown.

8. Identification of the prearranged signal for terminating the lockdown.

9. Identification of individuals authorized to issue a lockdown termination order.

10. Procedures for unlocking doors and verifying that the means of egress has been returned to normal operations upon termination of the lockdown.

11. Training procedures and frequency of lockdown plan drills.

404.2.3.2 Drills. Lockdown plan drills shall be conducted in accordance with the approved plan. Such drills shall not be substituted for fire and evacuation drills required by Section 405.2.

AGENCY: Building Code Council

RULE CITATION: 2018 Fire Code, Section 915

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In 915.4.1, Exception 2, should "battery-powered" be hyphenated to mirror Exception 1?

2018 NC Fire Code 915 Carbon Monoxide Alarm and Detection Systems. (180612 Item B-5)

915.1.1 Where required. Carbon monoxide detection shall be provided in Group <u>A-2</u>, I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

915.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide detection shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

915.1.3 Forced air furnaces. Carbon monoxide detection shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

915.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exceptions:

1. Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

The delayed effective date of this Rule is January 1, 2020. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

[Note: This Rule will also be printed in the 2018 NC Building Code, 915 Carbon Monoxide Alarm and Detection Systems.]

AGENCY: Building Code Council

RULE CITATION: 2018 Fuel Gas Code, Section 311

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In 311.4.4.1, Exception 2, should "battery-powered" be hyphenated to mirror Exception 1?

2018 NC Fuel Gas Code 311 Carbon Monoxide Alarms. (180612 Item B-7)

311.4.1.1 Where required. Carbon monoxide detection shall be provided in Group <u>A-2</u>, I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 311.4.2 where any of the conditions in Sections 311.4.1.2 through 311.4.1.6 exist.

311.4.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

311.4.1.3 Forced air furnaces. Carbon monoxide detection shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

311.4.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exceptions:

1. Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

AGENCY: Building Code Council

RULE CITATION: 2018 Mechanical Code, Section 313

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In 313.4.4.1, Exception 2, should "battery-powered" be hyphenated to mirror Exception 1?

2018 NC Mechanical Code 313 Carbon Monoxide Alarms. (180612 Item B-6)

313.4.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

313.4.1.3 Forced air furnaces. Carbon monoxide detection shall be provided in <u>Group A-2 occupancies</u>, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

313.4.1.1 Where required. Carbon monoxide detection shall be provided in Group <u>A-2</u>, I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 313.4.2 where any of the conditions in Sections 313.4.1.2 through 313.4.1.6 exist.

313.4.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exceptions:

 Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.
In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

AGENCY: Building Code Council

RULE CITATION: 2018 Residential Code, Section R328

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

R328.2.1.3: Consider ending (1) with a semicolon, not a comma

R328.2.2: Do you mean instead to refer to R328.2.2.1 and R328.2.2.2?

2018 NC Residential Code R202, R305, R310, R328 Lofts. (180612 Item B-12)

Section R202 Definitions

EGRESS ROOF ACCESS WINDOW. A skylight or roof window designed and installed to satisfy the emergency escape and rescue opening requirements in Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a loft.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor and open to it on at least one side with a ceiling height of less than 6 feet 8 inches (2032 mm), used as a living or sleeping space.

Section R305 Ceiling Height

R305.1 Minimum height. *Habitable space*, hallways and portions of *basements* containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

Exceptions:

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet (2134 mm).

2. The ceiling height above bathroom and toilet room fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a ceiling height of not less than 6 feet 8 inches (2032 mm) above an area of not less than 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

3. Beams, girders, ducts or other obstructions in *habitable space* shall be permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

4. Ceiling heights in *lofts* are permitted to be less than 6 feet 8 inches.

Section R310 Emergency Escape and Rescue Openings

R310.2.6 Egress roof access window. Egress roof access windows shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

Section R328 Lofts

R328.1 Minimum loft area and dimensions. *Lofts* used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections R328.1.1 through R328.1.4.

R328.1.1 Minimum area. Lofts shall have floor area of not less than 35 square feet (3.25 m²).

R328.1.2 Maximum area. Lofts shall have a floor area not greater than 70 square feet (6.50 m²).

R328.1.3 Minimum dimensions. *Lofts* shall not be less than 5 feet (1524 mm) in any horizontal dimension.

R328.1.4 Height effect on loft area. Portions of a *loft* with a sloping ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope) portions of a *loft* with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

R328.2 Loft access. The access to and primary egress from *lofts* shall be any type described in Sections R328.2.1 through R328.2.4.

R328.2.1 Stairways. Stairways accessing *lofts* shall comply with this code or with Sections R328.2.1.1 through R328.2.1.5.

R328.2.1.1 Width. Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The minimum below the handrail shall be not less than 20 inches (508 mm).

R328.2.1.2 Headroom. The headroom in stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

R328.2.1.3 Treads and Risers. Risers for stairs accessing a *loft* shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus 4/3 of the riser height, or 2. The riser height shall be 15 inches (381 mm) minus ³/₄ of the tread depth.

R328.2.1.4 Landing platforms. The top tread and riser of stairways accessing *lofts* shall be constructed as a landing platform where the *loft* ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the *loft*. The landing platform shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the *loft*, and 16 to 18 inches (406 to 457 mm) in height measured from the landing platform to the *loft* floor.

R328.2.1.5 Handrails. Handrails shall comply with Section R311.7.8.

R328.2.1.6 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.

R328.2.2 Ladders. Ladders accessing *lofts* shall comply with Sections R328.2.1 and R328.2.2.

R328.2.2.1 Size and capacity. Ladders accessing *lofts* shall have a rung width of not less than 12 inches (305 mm) and 10 inches (254 mm) to 14 inches (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200 pound (75 kg) load on any rung. Rung spacing shall be uniform within 3/8-inch (9.5 mm).

R328.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

R328.2.4 Ships ladders. Ships ladders accessing *lofts* shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

R328.2.5 Loft Guards. *Loft* guards shall be located along the open side of *lofts*. *Loft* guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

AGENCY: Building Code Council

RULE CITATION: 2018 Residential Code, Appendix M

DEADLINE FOR RECEIPT: Monday, April 8, 2019

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

I am just asking – in Figure AM109.1(2), will the text boxes about Freestanding Decks and Decks attached to the structure that were published in the Register, as well as the footnote of conversion, be included in the Code? I realize that it may be hard to recreate these for the RRC submission, but I did want to know if you intended to include them or if they were not adopted as part of the amendment.

2018 NC Residential Code AM109 Deck Bracing. (180612 Item B-4)

AM109.1 Deck bracing.

Decks shall be braced to provide lateral stability. Lateral stability shall be provided in accordance with one of the methods in Sections AM109.1.1 through AM109.1.5.

AM109.1.1. Lateral bracing not required.

When the deck floor height is less than 4 feet (1219 mm) above finished grade as shown in Figure AM109.1(1) and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required. Lateral bracing is not required for freestanding decks with a deck floor height 30 inches (762 mm) or less above finished grade.

AM109.1.2. Knee bracing.

4x4 wood knee braces are permitted to be provided on each column in both directions <u>for freestanding</u> <u>decks or parallel to the structure at the exterior column line for attached decks per Figure AM109.1(2)</u>. The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 degrees (0.79 rad) and 60 degrees (1.05 rad) from the horizontal. Knee braces shall be bolted <u>fastened</u> to the post and the girder/double band <u>in accordance</u> with one 5/8 inch (16 mm) hot dip galvanized bolt with nut and washer at both ends of the brace <u>of the methods shown in</u> <u>Table AM109.1.</u>

TABLE AM109.1 FASTENING OF BRACE TO POST AND GIRDER/BAND (CHOOSE ONE)

Fastener	Installation	Minimum Distances
One 5/8" diameter hot dipped galvanized through	Perpendicular to	2-3/16" end distance
bolt with nut and washer	post or	
	girder/band	
Two hot dipped galvanized (ASTM A153, Class C,	Perpendicular to	1" edge distance, 1-1/2"
minimum) screws having minimum diameter of	post or	horizontal spacing, minimum 3"
0.270" and long enough to achieve 3" penetration	girder/band	end distance
into the post or girder/band.		

AM109.1.3. Post embedment.

For free standing decks without knee braces or diagonal bracing, lateral stability is permitted to be provided by embedding the post in accordance with Figure AM109.1(3) and Table AM109.1 AM109.2.

TABLE AM109.1 <u>AM109.2</u> POST EMBEDMENT FOR FREE STANDING DECKS

POST SIZE	MAXIMUM TRIBUTARY AREA	MAXIMUM POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER	
4" x 4"	48 SF	4'-0"	2'-6"	1'-0"	
6" x 6"	120 SF	6'-0"	3'-6"	1'-8"	

AM109.1.4. Cross bracing.

2x6 diagonal vertical cross bracing is permitted to be provided in two perpendicular directions for free standing decks or parallel to the structure at the exterior column line for attached decks. The 2x6 bracing shall be attached to the posts with one 5/8 inch (16 mm) hot dip galvanized bolt with nut and washer at each end of each bracing member per Figure AM109.1(4).

AM109.1.5. Piles in coastal regions.

For embedment of piles in coastal regions, see Chapter 46.

