

REQUEST FOR TECHNICAL CHANGE

AGENCY: North Carolina Building Code Council

RULE CITATION: 901.6.1 Automatic sprinkler systems (131210 Item B-1)

DEADLINE FOR RECEIPT: Friday, August 15, 2014

NOTE WELL: This request when viewed on computer extends 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 this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

What do you mean by a "constantly attended location"?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amber Cronk May
Commission Counsel
Date submitted to agency: Friday, August 1, 2014

2012 NC Building Code

901.6.1 Automatic sprinkler systems. (131210 Item B-1)

901.6.1 Automatic sprinkler systems. Automatic sprinkler systems shall be monitored by an *approved* supervising station.

Exceptions:

1. A supervising station is not required for *automatic sprinkler systems* protecting one- and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. A group R-2 building sprinklered in accordance with NFPA 13R where sprinklers are provided for porches, balconies, corridors and stairs that are open and attached and installed in accordance with Section 903.4. At a minimum an approved audible alarm device shall be provided on every sprinklered R-2 building in accordance with Section 903.4.2 of the North Carolina Fire Code. No on-site supervision is required at a constantly attended location.

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

REQUEST FOR TECHNICAL CHANGE

AGENCY: North Carolina Building Code Council

RULE CITATION: 2902.1.1 Fixture Calculations (131210 Item B-2)

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Are the total required fixtures in 2. set out elsewhere in another section of the Code? If so, please reference.

Did you use "&" in between "pool" and "pool deck" instead of "and" for your publishing purposes?

Are the words "walking distance" necessary after "500 feet"?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amber Cronk May
Commission Counsel
Date submitted to agency: Friday, August 1, 2014

2012 NC Building Code

2902.1.1 Fixture calculations. (131210 Item B-2)

2902.1.1 Fixture calculations. To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

Exceptions:

1. The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

2. In buildings that contain dwellings or sleeping units that have a pool dedicated to the residents, a percentage reduction of the total required fixtures provided for a pool & pool deck without bleachers and grandstands may be taken equal to the percentage of total residential units whose entries fall within 500 feet walking distance of the pool deck.

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

REQUEST FOR TECHNICAL CHANGE

AGENCY: North Carolina Building Code Council

RULE CITATION: 3404.6 Means of egress capacity factors (130910 Item B-6)

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What is considered a "distinct hazard to life" and how is this determination made?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amber Cronk May
Commission Counsel
Date submitted to agency: Friday, August 1, 2014

2012 NC Building Code

3404.6 Means of egress capacity factors. (130910 Item B-6)

3404.6 Means of egress capacity factors. Alterations to any existing building or structure shall not be affected by the egress width factors in Section 1005.1 for new construction in determining the minimum egress widths or the minimum number of exits in an existing building or structure. The minimum egress widths for the components of the *means of egress* shall be based on the *means of egress* width factors in the building code under which the building was constructed, and shall be considered as complying *means of egress* for any *alteration* if, ~~in the opinion of the building official,~~ they do not constitute a distinct hazard to life.

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

2012 NC Fuel Gas Code
403.10.1 Pipe joints. (131210 Item B-4)

403.10.1 Pipe joints. Pipe joints shall be threaded, flanged, brazed, ~~or~~ welded, or made with press-connect fittings complying with ANSI LC-4. Where nonferrous pipe is brazed, the brazing materials shall have a melting point in excess of 1,000°F (538°C). Brazing alloys shall not contain more than 0.05-percent phosphorous.

Amend Chapter 8 ANSI Standard reference as follows:

ANSI LC-4- ~~07~~ 2012/CSA-6.32-2012 Press-connect ~~Copper and Copper Alloy~~ Metallic Fittings for Use In Fuel Gas Distribution Systems.....~~403.10.1, 403.10.2~~

The delayed effective date of this Rule is January 1, 2015.
The Statutory authority for Rule-making is G. S. 143-136; 143-138.

2012 NC Mechanical Code

505.2 Makeup air required. (131210 Item B-6)

505.2 Makeup air required. Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute ($0.19 \text{ m}^3/\text{s}$) shall be provided with makeup air at a rate approximately equal to the exhaust air rate that is in excess of 400 cubic feet per minute ($0.19 \text{ m}^3/\text{s}$). Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

Exception: Where all appliances in the house are direct-vent, power-vent, unvented, or electric, makeup air shall be provided where exhaust fans are capable of exhausting more than 600 cubic feet per minute ($0.28 \text{ m}^3/\text{s}$). Exhaust hood systems capable of exhausting more than 600 cubic feet per minute shall be provided with makeup air at a rate approximately equal to the exhaust air rate that is in excess of 600 cubic feet per minute.

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

REQUEST FOR TECHNICAL CHANGE

AGENCY: North Carolina Building Code Council

RULE CITATION: 403.131 Fixture calculations (131210 Item B-3)

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Are the total required fixtures in 2. set out elsewhere in another section of the Code? If so, please reference.

Did you use "&" in between "pool" and "pool deck" instead of "and" for your publishing purposes?

Are the words "walking distance" necessary after "500 feet"?

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Amber Cronk May
Commission Counsel
Date submitted to agency: Friday, August 1, 2014

2012 NC Plumbing Code

403.1.1 Fixture calculations. (131210 Item B-3)

403.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 403.1. Fractional numbers resulting from applying the fixture ratios of Table 403.1 shall be rounded up to the next whole number. For calculations involving multiple *occupancies*, such fractional numbers for each *occupancy* shall first be summed and then rounded up to the next whole number.

Exceptions:

1. The total occupant load shall not be required to be divided in half where *approved* statistical data indicates a distribution of the sexes of other than 50 percent of each sex.

2. In buildings that contain dwellings or sleeping units that have a pool dedicated to the residents, a percentage reduction of the total required fixtures provided for a pool & pool deck without bleachers and grandstands may be taken equal to the percentage of total residential units whose entries fall within 500 feet walking distance of the pool deck.

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

R308.4 Hazardous locations. The following shall be considered specific hazardous locations for the purposes of glazing:

1. Glazing in all fixed and operable panels of swinging, sliding and bifold doors.

Exceptions:

1. Glazed openings of a size through which a 3-inch diameter (76 mm) sphere is unable to pass.
2. Decorative glazing.
2. Glazing in an individual fixed or operable panel ~~adjacent to a~~ in the same plane as the door where the nearest vertical edge is within 24-inches (610 mm) of the door in a closed position and whose bottom edge is less than 60 inches (1524 mm) above the floor or walking surface.

Exceptions:

1. Decorative glazing.
2. When there is an intervening wall or other permanent barrier between the door and the glazing.
3. ~~Glazing in walls on the latch side of and perpendicular to the plane of the door in a closed position.~~
Deleted.
4. Glazing adjacent to a door where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth.
5. Glazing that is adjacent to the fixed panel of patio doors.

3. Glazing in an individual fixed or operable panel that meets all of the following conditions:

- 3.1. The exposed area of an individual pane is larger than 9 square feet (0.836 m²); and
- 3.2. The bottom edge of the glazing is less than 18 inches (457 mm) above the floor; and
- 3.3. The top edge of the glazing is more than 36 inches (914 mm) above the floor; and
- 3.4. One or more walking surfaces are within 36 inches (914 mm), measured horizontally and in a straight line, of the glazing.

Exceptions:

1. Decorative glazing.
2. When a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and be a minimum of 1 1/2 inches (38 mm) in cross sectional height.
3. Outboard panes in insulating glass units and other multiple glazed panels when the bottom edge of the glass is 25 feet (7620 mm) or more above *grade*, a roof, walking surfaces or other horizontal [within 45 degrees (0.79 rad) of horizontal] surface adjacent to the glass exterior.

4. All glazing in railings regardless of area or height above a walking surface. Included are structural baluster panels and nonstructural infill panels.

5. Glazing in enclosures for or walls facing hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers, where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface.

Exception: Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the waters edge of a hot tub, whirlpool or bathtub.

6. Glazing in walls and fences adjacent to indoor and outdoor swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60 inches (1524 mm) above a walking surface and within 60 inches (1524 mm), measured horizontally and in a straight line, of the water's edge. This shall apply to single glazing and all panes in multiple glazing.

7. Glazing adjacent to stairways, landings and ramps within 36 inches (914 mm) horizontally of a walking surface when the exposed surface of the glazing is less than 60 inches (1524 mm) above the plane of the adjacent walking surface.

Exceptions:

1. When a rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and be a minimum of 1 1/2 inches (38 mm) in cross sectional height.
2. The side of the stairway has a guardrail or handrail, including balusters or in-fill panels, complying with Sections R311.7.7 and R312 and the plane of the glazing is more than 18 inches (457 mm) from the railing; or
3. When a solid wall or panel extends from the plane of the adjacent walking surface to 34 inches (863 mm) to 36 inches (914 mm) above the walking surface and the construction at the top of that wall or panel is capable of withstanding the same horizontal load as a *guard*.

8. Glazing adjacent to stairways within 60 inches (1524 mm) horizontally of the bottom tread of a stairway in ~~any~~ the direction of travel when the exposed surface of the glazing is less than 60 inches (1524 mm) above the nose of the tread.

Exceptions: Deleted.

- ~~1. The side of the stairway has a guardrail or handrail, including balusters or in-fill panels, complying with Sections R311.7.7 and R312 and the plane of the glass is more than 18 inches (457 mm) from the railing; or~~
- ~~2. When a solid wall or panel extends from the plane of the adjacent walking surface to 34 inches (864mm) to 36 inches (914 mm) above the walking surface and the construction at the top of that wall or panel is capable of withstanding the same horizontal load as a *guard*.~~

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

2012 NC Residential Code
R4605.5 Corrosion Resistance. (131210 Item B-7)

R4605.5 In the coastal hazard area and the ocean hazard area, all metal connectors and fasteners outside conditioned spaces shall be hot-dip galvanized steel after fabrication and meet ASTM A 153. Exposed metal connectors, such as tie-down straps on porches, decks, and areas under the structure, shall be a minimum 3/16-inch (5mm) thick, and shall be hot-dip galvanized after fabrication and meet ASTM A 123 or ASTM A 153. Stainless steel light-gage metal connectors shall be permitted in exposed locations. Metal connectors of approved equivalent corrosion-resistant material may be accepted. See Table R4605.5.

TABLE R4605.5^a
CORROSION RESISTANCE

(Applies only to Structures Located in Coastal High-Hazard Areas and Ocean Hazard Areas)

	OPEN (exterior, porches, under house)	EXPOSURE LEVEL VENTED/ENCLOSED (attic, floor trusses, enclosed crawl spaces and stud cavity)	CONDITIONED (heated/cooled living areas)
Nails, staples, screws	Hot-dip galvanized	Hot-dip galvanized	—
Nuts, bolts, washers, tie rods	Hot-dipped galvanized	Hot-dip galvanized	—
Steel connection plates and straps (3/16” minimum thickness)	Hot-dip galvanized after fabrication	Hot-dip galvanized	—
Sheet metal connectors, wind anchors, joist hangers, steel joists and beams	Stainless steel or hot-dipped galvanized after fabrication	Hot-dip galvanized after plate fabrication or <u>triple galvanized^b</u>	Hot-dip galvanized or <u>triple galvanized^b</u>
Truss plates	Stainless steel or hot-dipped galvanized after fabrication	Hot-dip galvanized after fabrication, or stainless steel, <u>triple galvanized^b</u> or <u>in-</u> <u>accordance with TPI-1 of the Truss Plate</u> <u>Institute</u> within 6’-0” of a gable louver, <u>ridge</u> or soffit vent. Otherwise in <u>accordance with TPI-1 of the Truss Plate</u> <u>Institute</u> <u>Standard galvanized^b</u> .	Standard galvanized ^b

a. Applies only to structures located in Coastal High-Hazard Areas and Ocean High Hazard Areas

b. Triple galvanizing – G185, standard galvanizing – G60 both per ASTM A 653 / A 653M

The delayed effective date of this Rule is January 1, 2015.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

AGENCY: North Carolina Building Code Council

RULE CITATION: Appendix AM 104.1 Deck Attachment (131210 Item B-5)

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In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

What is considered an approved screw? Are all screws that meet the qualifications of a minimum shank diameter of .195' and a length long enough to penetrate through the supporting structure band approved?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amber Cronk May
Commission Counsel
Date submitted to agency: Friday, August 1, 2014

AM104.1 Deck attachment. When a deck is supported at the structure by attaching the deck to the structure, the following attachment schedules shall apply for attaching the deck band to the structure.

AM104.1.1 All structures except brick veneer structures

METHOD	FASTENERS	8' MAX JOIST SPAN	16' MAX JOIST SPAN
1	5/8" Hot dipped galv. bolts with nut and washer ^b and 12d Common hot dipped galv. nails ^c	1@3'-6" o.c. and 2@8" o.c.	1@1'-8" o.c. and 3@6" o.c.
OR			
2	Self-Drilling Screw Fastener ^d	12" o.c. staggered	6" o.c. staggered

- a. Attachment interpolation between 8 foot and 16 foot joists span is allowed.
- b. Minimum edge distance for bolts is 2½ inches.
- c. Nails must penetrate the supporting structure band a minimum of 1½ inches.
- d. Self-drilling screw fastener shall be an approved screw having a minimum shank diameter of 0.195" and a length long enough to penetrate through the supporting structure band. The structure band shall have a minimum depth of 1-1/8". Screw shall have an evaluated allowable shear load for Southern Pine to Southern Pine lumber of 250 pounds and shall have a corrosion resistant finish equivalent to hot dipped galvanized. Minimum edge distance for screws is 1-7/16". A maximum of ½" thick wood structural panel is permitted to be located between the deck ledger and the structure band.

The delayed effective date of this Rule is January 1, 2015.
The Statutory authority for Rule-making is G. S. 143-136; 143-138.