

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

***NOTE: 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:

*I note that "code" is not capitalized throughout this Code. So, I take it that it should remain lowercase everywhere is used as such?*

***It will be lowercase unless specifically required otherwise.***

*So that I'm clear – this will be the 2018 Plumbing Code? Or is it the 2019 Code? I note that page 2 of the packet states this is the 2012 NC Plumbing Code and page 17 states it was adopted in 2010 to be effective in 2011.*

**[A] 101.1 Title.** These regulations shall be known as the North Carolina Plumbing Code as adopted by the North Carolina Building Code Council on **June 13, 2017, to be effective January 1, 2019.** References to the International Codes shall mean the North Carolina Codes. The North Carolina amendments to the International Codes are underlined.

*Also, to be clear – the Council did not adopt the International Private Sewage Disposal Code, correct?*

***Correct.***

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

**Barry Gupton, PE  
Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code Acknowledgements and Preface

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In reviewing these rules, the staff determined that the following technical changes need to be made:

*On Page 4 of the packet, should the Commissioner of Insurance be updated?*

***All of the "upfront" pages will be editorially updated in all of the Code volumes, including Staff and BCC members.***

*On Page 14 of the packet, aren't you deleting Chapter 14? Should that be reflected here?*

*Are you keeping Pages 15-16 of the packet? If so, why?*

***The "upfront" pages are not part of the adopted Code. The rule begins with Chapter 1.***

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

**Barry Gupton, PE  
Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, 103, 104, 106, 107,108, 109

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*What are the Administrative Code and Policies you are referring to here? You need to specify this or the rules are unclear as written. If the intent is to state that that governing law and rules will apply, do you intend to state that at all or just not have these Sections within the code?*

***The North Carolina Administrative Code and Policies is a volume of the NC State Building Codes.***

*Please note that Section 105.4.6 requires the alternative engineered design to meet the requirement of Section 107, and there are no requirements here.*

**105.4.6 Inspection and testing.** *The alternative engineered design shall be tested and inspected in accordance with the requirements of **the North Carolina Administrative Code and Policies.***

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

**Barry Gupton, PE**  
**Chief Code Consultant**

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Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 1

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In reviewing these rules, the staff determined that the following technical changes need to be made:

102.3: *Since you are adding "All" to start the sentence, "devices" should be lowercase.*

**[A] 102.3 Maintenance.**

Plumbing systems, materials and appurtenances, both existing and new, and parts thereof, shall be maintained in proper operating condition in accordance with the original design in a safe and sanitary condition. **All devices** or safeguards required by this code shall be maintained in compliance with the edition of the code under which they were installed.

The owner or the owner's authorized agent shall be responsible for maintenance of plumbing systems. To determine compliance with this provision, the code official shall have the authority to require any plumbing system to be re-inspected.

102.8: *In the Exception, why is "listing" italicized? I don't see the term italicized. And what does it mean?*

**[A] 102.8 Referenced codes and standards.**

The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

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**[R] Exception:** Where enforcement of a code provision would violate the conditions of the **listing** of the *equipment* or *appliance*, the conditions of the *listing* and manufacturer's instructions shall apply.

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

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Commission Counsel  
Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 2

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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In reviewing these rules, the staff determined that the following technical changes need to be made:

*202: Given your deletions in the preface (see Page 7 of the packet), shouldn't all terms in brackets (like [M] before "Access") be deleted? And where it is used, if you need to retain it, what does [R] mean?*

**The "upfront" page are for informational purposes. The ICC explanation of the "letter designations" will be retained. They "letter designations" are used to track the ICC code development process.**

*When you publish, please sure all terms are in alphabetical order (see Page 36 of the packet – it should be "Alteration" "Alternate On-Site Non-Potable Water" and then "Alternative Engineered Design")*

**Acknowledged.**

*In the definition of "approved" you need to underline the NC addition of "for compliance"*

**[A] APPROVED.** Acceptable to the code official or other authority having jurisdiction **for compliance** with the provisions of the applicable code or referenced standard.

*In the definition of "Branch, Fixture" which "Fixture Branch" definition should be referred to – drainage or water supply? Or will that be dependent upon what the user is looking for?*

**This is simply a cross-reference. It will be dependent upon what the user is looking.**

*The definition of "Cistern" does not meet the definition in G.S. 143-138(b12), which states:*

(b12) Cisterns. - The Code may include rules pertaining to the construction or renovation of residential or commercial buildings and structures that permit the use of cisterns to provide water for flushing toilets and for outdoor irrigation. No State, county, or local building code or regulation shall prohibit the use of cisterns to provide water for flushing toilets and for outdoor irrigation. **As used in this subsection, "cistern" means a storage tank that is watertight; has smooth interior surfaces**

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and enclosed lids; is fabricated from nonreactive materials such as reinforced concrete, galvanized steel, or plastic; is designed to collect rainfall from a catchment area; may be installed indoors or outdoors; and is located underground, at ground level, or on elevated stands.

*Is this because this code does not include such rules?*

**Yes. “Cistern” was referenced in 602 in a limited application, but deleted.**

*In “Drain-Back System” what are these prescribed circumstances? Does your regulated public know?*

**Yes. The system designer/manufacturer would prescribe the drain-back conditions.**

*In “Jurisdiction” what do you mean by “due legislative authority”? Do you mean 143-138(e) in adoption of local codes that are not this code? Or are you trying to capture this code and enforcement by local officials pursuant to 143-139?*

**143-139. The Code is adopted by the BCC for statewide enforcement. The jurisdiction may also adopt it for civil penalties.**

*In “Kitchen” why are you not beginning the sentence “An area used...” to be consistent with the rest of this Section?*

**This is the definition found in the Residential Code. Retain for consistency.**

*In “Laundry Tray” begin the sentence with a capitalized letter.*

**LAUNDRY TRAY. A fixed tub with running water and drainpipe for washing clothes and other household linens, also called set tub.**

*In “Manifold Water Distribution Systems” what is “close proximity”? Does your regulated public know?*

**Yes. Adjacent, adjoining, contiguous. 201.4 Terms not defined.**

*In “Non-Potable Water” the term is not hyphenated in the International Plumbing Code (IPC). Will this create an issue in using this code?*

**No. The final IPC publication will delete the hyphen throughout.**

*On Page 48 of the packet, delete the first definition of “reclaimed water”*

**Deleted the duplicate definition.**

*In “Sump pump” what is “usually”? And consider stating “Select the pump for the specific head and volume...”*

**Most of the time, typically.**

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*In “Water Service Pipe” please either begin the sentence with an article, such as “the” or “a” or make the term “water service pipe” plural.*

**Water service pipe.** The pipe from the water main or other source of potable water supply, or from the meter when the meter is at the public right of way, to the water distribution system of the building served. The water service pipe shall terminate 5 feet (1524 mm) outside the foundation wall.

*In “Weighted Average Lead Content” on the fifth line, will they be determining the weighted percentage of lead of the wetted component, or will this be the lead in the component regardless of whether it’s wetted? I asked because the next sentence refers to the “weighted percentage of ... each wetted component...” For consistency, should all references be to the wetted component?*

**No. They are different terms used by the manufacturer to mathematically determine lead content.**

*So that I am clear – are you deleting “Well” because of the exemption of private drinking water wells from the code, as set forth in G.S. 143-138(b17)?*

**Yes. There are other agencies that regulate water supplies.**

*In “Yard Hydrant” should this read “A freeze proof... that is an...”? If not, then it looks like you are defining “freeze proof yard hydrant” rather than “Yard Hydrant” Is that the intent here?*

**A yard hydrant must be freeze proof to function and not fail.**

**YARD HYDRANT.** A freeze proof outdoor water supply outlet that has a valve and outlet above ground and a drain opening below the frost level.

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

**Barry Gupton, PE  
Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 3

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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In reviewing these rules, the staff determined that the following technical changes need to be made:

301.6: *In the Exception, what are the "other means of disposal"?*

### **301.6 Prohibited locations.**

Plumbing systems shall not be located in an elevator shaft or in an elevator equipment room.

**Exception:** Floor drains, sumps and sump pumps shall be permitted at the base of the shaft, provided that they are indirectly connected to the plumbing system and comply with Section 1003.4 or other **approved** means of disposal.

302.1: *Will your regulated public know the statutes? Please state "NC General Statutes"*

**Yes. This is intended primarily as information about the types of material that can damage the building plumbing. Other agencies and local jurisdictions regulate the discharge of these same materials into private/public sewers.**

### **302.1 Detrimental or dangerous materials.**

~~Ashes, cinders or rags; flammable, poisonous or explosive liquids or gases; oil, grease or any other insoluble material capable of obstructing, damaging or overloading the building drainage or sewer system, or capable of interfering with the normal operation of the sewage treatment processes, shall not be deposited, by any means, into such systems. Note: The following text is provided for informational purposes only. Disposal of these materials shall be done in accordance with the requirements of the **North Carolina General Statutes** and local ordinances.~~  
Ashes, cinders or rags; flammable, poisonous or explosive liquids or gases; oil, grease or any other insoluble material capable of obstructing, damaging or overloading the building drainage or sewer system, or capable of interfering with the normal operation of the sewage treatment processes or private disposal system, shall not be deposited into such systems.

305.4: *Is the term "In other cases" necessary here?*

### **305.4 Freezing.**

Water pipes installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. **Water**, soil and waste pipes shall not be installed outside of a building, in

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unconditioned attics, unconditioned utility rooms, or crawl spaces, concealed in outside walls, or in any other place subjected to freezing temperatures unless adequate provision is made to protect such pipes from freezing by a minimum of R6.5 insulation determined at 75°F (24°C) in accordance with ASTM C-177 or heat or both.

Exterior water supply system piping shall be installed not less than 6 inches (152 mm) below the frost line and not less than 12 inches (305 mm) below grade.

*In the Note, what are “abnormally low temperatures” and “extended periods”? Does your regulated public know?*

***This note is provided as guidance that the Code minimum will not prevent freezing in extended extreme conditions.***

305.4.1: *What is “adequate provision”? Does your regulated public know?*

***Enough, sufficient protection from freezing. Approved by the code official.***

**305.4.1 Frost protection.**

No traps of soil or waste pipe shall be installed or permitted outside of a building, or concealed in outside walls or in any place where they may be subjected to freezing temperatures, unless approved provisions are made to protect them from freezing.

312.1: *Given the deletion of “for piping systems other than plastic” should it read “All plumbing system... tested with either water or air.”?*

**312.1 Required tests.**

The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.10 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The equipment, material, power and labor necessary for the inspection and test shall be furnished by the permit holder and ~~he or she~~ the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. All plumbing system piping shall be tested with either water or, for piping systems other than plastic, by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain whether the pressure has reached all parts of the system.

312.5: *Given the deletion, should it read “proved tight by a water or air test...”?*

**312.5 Water supply system test.**

Upon completion of a section of or the entire water ~~supply-distribution~~ system, the system, or portion completed, shall be tested and proved tight under a water pressure not less than the working pressure of the system; or, for piping systems other than plastic, by an air test of not less than 50 100 psi (688 kPa). Repaired sections of existing water systems shall be tested at existing operating pressure. This pressure shall be held for not less than 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 107.

314.1: *Should the word “Code” be capitalized to be consistent with 313.1?*

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**[M] 314.1 Approved location.** Approved location shall be in accordance with the North Carolina Mechanical Code.

*317.4: G.S. 143-138(b2)(1) states that the detector must meet the standards of UL 2034 or 2075. What is your authority to leave 2075 out of this rule?*

***UL 2034 is a single/multi-station standard that is used most often with CO producing appliance installation. UL 2075 is the standard used for connection to a commercial central station and alarm system panel. UL 2075 is included in the Building/Fire Codes in more detail.***

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

**Barry Gupton, PE  
Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
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## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 4

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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In reviewing these rules, the staff determined that the following technical changes need to be made:

Table 403.1: In Footnote n, replace “which” with “that”

n. Unheated storage buildings **that** are used periodically are not required to have toilet rooms.

403.1.1: Should this now be “Exceptions”?

**Yes. Plural added.**

403.8.1: You state the maximum class size and cite to N.C.G.S. 115C-301. However, that statute sets limits for only Kindergarten through 3<sup>rd</sup> grade, and allows the school districts to allocate the rest. What is your authority to set class size here? If the intent is to simply limit occupancy, state that.

**The intent is to provide adequately designed plumbing facilities for the building, not to limit class size.**

**403.8.1 Occupant content.** Occupant content of public schools for the purpose of determining the number of required facilities shall be the **maximum design** class size multiplied by the number of classrooms. A public school classroom is a room or space 500 square feet (46.5 m<sup>2</sup>) or larger normally used for instructional purposes. **The maximum design** class sizes are 29 students for grades K through 8 and 33 students for grades 9 through 12 (GS 115C-301). The occupant load for private schools shall be as listed in Table 1004.1.2 of the *North Carolina Building Code*.

403.8.3: Is the intent to ensure that in setting ratios that these ratios be considered? Otherwise, I don't see how you all have the authority to set the staffing ratio for teachers in public schools.

**The intent is to provide appropriately designed distribution of female/male plumbing facilities for the building, not to set the actual staffing ratio.**

407.5 and 421.5: What does “(P2713.3)” mean? Is it referring to something?

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***That is a cross-reference to the Residential Code.***

416.5: *For the underlined language, is “Deleted” supposed to be there?*

***No. The NC language replaces the IPC language.***

417.4: *Should this now be “Exceptions”?*

***Yes. Plural added.***

419.1: *End 3 with a semicolon not a period.*

***Semicolon added.***

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

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Commission Counsel  
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## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 5

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*So that I'm clear – these rules do not require the permitting of a replacement water heaters in one- or two- family dwellings, as set forth in G.S. 143-138(b10), correct? And it also complies with the exclusion in G.S. 143-138(b16)?*

**Correct. These requirements are for new installation.**

*501.9: Why do you need this? Do you need to recite it for the ease of your regulated public?*

**Yes. There have been problems with water heaters without proper safety devices/settings.**

*Assuming you need to keep it, should "501.9" be named "North Carolina General Statutes"*

*Where you state "G.S." please either state "N.C.G.S." or "North Carolina General Statute"*

*The name of G.S. 66-27.1 is "Certain automatic hot water tanks or heaters to have approved relief valves; installation or sale of unapproved relief valves forbidden."*

### **501.9 Safety Features of Hot Water Heaters.**

The following is a reprint of **N.C.G.S. 66-27.1. "Certain automatic hot water tanks or heaters to have approved relief valves; installation or sale of unapproved relief valves forbidden."**

- a) No individual, firm, corporation or business shall install, sell or offer for sale any automatic hot water tank or heater of 120-gallon (454 L) capacity or less, except for a tankless water heater, which does not have installed thereon by the manufacturer of the tank or heater an American Society of Mechanical Engineers and National Board of Boiler and Pressure Vessel Inspectors approved type pressure-temperature relief valve set at or below the safe working pressure of the tank as indicated, and so labeled by the manufacturer's identification stamped or cast upon the tank or heater or upon a plate secured to it.

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- b) No individual, firm, corporation or business shall install, sell or offer for sale any relief valve, whether it be pressure type, temperature type or pressure-temperature type, which does not carry the stamp of approval of the American Society of Mechanical Engineers and the National Board of Boiler and Pressure Vessel Inspectors.

502.7.4: *Who determines the impossibility? The individual installing or the code official?*

**The code official. It is “possible” where the water can flow naturally, by gravity.**

504.7: *Are you trying to say that (a) through (d) are locations where water leakage will cause damage? If so, state that. If you mean it as an additional location, insert an “or” before “a location”*

**504.7 Required pan.**

Where a storage tank-type water heater or a hot water storage tank is installed in: (a) remote locations such as a suspended ceiling, (b) attics, (c) above occupied spaces, (d) unventilated crawl spaces, or (e) a location where water leakage from the tank will cause damage to primary structural members, the tank or water heater shall be installed in a galvanized steel or aluminum pan having a material thickness of not less than 0.0236 inch (0.6010 mm) (No. 24 gage for steel or No. 26 gage for aluminum), or other pans *approved* for such use.

504.7.1: *Please remove the extra “l” from “shall” on the second line.*

**Editorial. Corrected.**

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

**Barry Gupton, PE  
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Commission Counsel  
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## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 6

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In reviewing these rules, the staff determined that the following technical changes need to be made:

604.4.1: In 1, replace "which" with "that"

1. In all occupancies in restrooms that have six or more lavatories.

604.5: What is this exception to? What length of restriction – the 36 inches for termination of the fixture supply pipe?

***It is an exception to the 36-inch length restriction.***

605.15.2: Please delete the first sentence "Joint surfaces shall be clean and free from moisture" because you added it below. There's no need to state this twice in the same rule.

### **605.15.2 Solvent cementing.**

~~Joint surfaces shall be clean and free from moisture. Joints shall be made in accordance with the pipe manufacturer's installation instructions. Where such instructions require that a primer be used, the primer shall be applied to the joint surfaces and a solvent cement orange in color and conforming to ASTM F 493 shall be applied to the joint surfaces. Where such instructions allow for a one-step solvent cement, yellow in color and conforming to ASTM F 493, to be used, the joint surfaces shall not require application of a primer before the solvent cement is applied. The joint shall be made while the cement is wet and in accordance with ASTM D 2846 or ASTM F 493. Solvent cemented joints shall be permitted above or below ground.~~

Joint surfaces shall be clean and free from moisture, and an approved primer shall be applied. Solvent cement, orange in color and conforming to ASTM F 493, shall be applied to joint surfaces. The joint shall be made while the cement is wet, and in accordance with ASTM D 2846 or ASTM F 493. Solvent cement joints shall be permitted above or below ground.

605.26: I believe you mean to cross-reference 605.26.1 through 605.26.3.

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605.26 Polybutylene plastic. Joints between polybutylene plastic pipe and tubing or fittings shall comply with Sections 605.26.1 through 605.26.3.

606.2.1: *Since you are adding this to the IPC, please underline it.*

**606.2.1 Buildings other than dwellings or dwelling units.** Each supply branch line serving more than one fixture shall have a shutoff valve installed so as to isolate all fixtures and all pieces of equipment supplied by the branch line. The shutoff valve shall be labeled and located as close to the connection to the supply main and riser as practical.

*And who will determine what is practical?*

**The contractor will locate it dependent upon fitting sizes, obstructions, etc. The code official approves the location.**

607.3: *On Pages 130-131 of the packet, you repeat 607.1. Did you mean to insert 607.3 here? If not, then are you deleting it, since I don't see it addressed elsewhere in the packet?*

**IPC 607.3 should remain here.**

**607.3 Thermal expansion control.**

Where a storage water heater is supplied with cold water that passes through a check valve, pressure reducing valve or backflow preventer, a thermal expansion tank shall be connected to the water heater cold water supply pipe at a point that is downstream of all check valves, pressure reducing valves and backflow preventers. Thermal expansion tanks shall be sized in accordance with the tank manufacturer's instructions and shall be sized such that the pressure in the water distribution system shall not exceed that required by Section 604.8.

608.13.3: *Will your regulated public know there are hazardous chemical additives added downstream? And is the prohibition to prevent the system from adding the additives to the downstream?*

**The designer will know the materials that will be used in the system.**

608.17: *I take it you are deleting these because of the exemption of private drinking water wells from the code, as set forth in G.S. 143-138(b17)?*

**Yes. There are other agencies that regulate water supplies.**

610.1: *Please add a period after "jurisdiction"*

**There is a period at the end of the sentence.**

614.1: *In 2 and 3, replace "which" with "that"*

**Replaced in both places.**

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

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

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## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 7

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In reviewing these rules, the staff determined that the following technical changes need to be made:

*702.1: Is "solvent cemented" hyphenated? (Please note this question where this term is used, like in 702.4) I note that term appears to be hyphenated in 705.21.2.*

### **702.1 Above-ground sanitary drainage and vent pipe.**

Above-ground soil, waste and vent pipe shall conform to one of the standards listed in Table 702.1. Pipe fittings shall not be solvent-cemented inside of plastic pipe.

*703.2: Please add a comma and "it" or "the drain" after "unstable ground" on the fourth line.*

### **703.2 Drainage pipe in filled ground.**

Where a building sewer or building drain is installed ~~on filled or unstable ground, the drainage pipe shall conform to one of the standards for ABS plastic pipe, cast-iron pipe, copper or copper alloy tubing, or PVC plastic pipe listed in Table 702.3~~ in unstable fill or unstable ground, the drainage pipe shall be of cast-iron or ductile iron pipe, except that nonmetallic drains may be laid upon an approved continuous supporting system if installed in accordance with the manufacturer's installation instructions.

*704.5: Delete "as" before "dead ends."*

**704.5 Dead ends.** In the installation or removal of any part of a drainage system, dead ends shall be prohibited. Cleanout extensions and approved future fixture drainage piping shall not be considered dead ends.

*705.21: Please confirm that the intended cross-reference is 705.7.1 and 705.7.2 and not 705.21.1 and 705.21.2.*

**705.21 Coextruded composite ABS pipe, joints.** Joints between coextruded composite pipe with an ABS outer layer or ABS fittings shall comply with Sections 705.21.1 and 705.21.2.

*705.21.2: Please remove the errant hyphen in "solvent"*

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Commission Counsel  
Date submitted to agency: July 26, 2017

**705.21.2 Solvent cementing.** Joint surfaces shall be clean and free from moisture. Solvent cement that conforms to ASTM D 2235 or CSA B181.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet. Joints shall be made in accordance with ASTM D 2235, ASTM D 2661, ASTM F 628 or CSA B181.1. **Solvent-cement** joints shall be permitted above or below ground.

*705.22: Please ensure that this is the correct cross-reference. I do not believe it is, as there is no 705.8.2.*

**705.22 Coextruded composite PVC pipe.** Joints between coextruded composite pipe with a PVC outer layer or PVC fittings shall comply with Sections **705.22.1 and 705.22.2.**

*708.1.4: Please spell it "One"*

**708.1.4 Changes of direction.**

Where a horizontal drainage pipe, a *building drain* or a *building sewer* has a change of horizontal direction greater than 45 degrees (0.79 rad), a cleanout shall be installed at the change of direction. Where more than one change of horizontal direction greater than 45 degrees (0.79 rad) occurs within 40 feet (12 192 mm) of *developed length* of piping, the cleanout installed for the first change of direction shall serve as the cleanout for all changes in direction within that 40 feet (12 192 mm) of *developed length* of piping. **One** cleanout shall be required for every four horizontal 45-degree (0.79 rad) changes located in series [a long sweep is equivalent to two 45-degree (0.79 rad) bends].

*What are the words in brackets for?*

**Instructional, to provide equivalency.**

*715.1: Should this read "Exceptions"?*

**Yes. Plural added.**

*717.5: Insert a "shall" before "be made of high-density..."*

**717.5 Pipe fittings.**

Pipe fittings to be connected to the replacement piping **shall be** of extra-high molecular weight PE3408 material made of high-density polyethylene (HDPE) that conforms to cell classification number PE3608, PE4608 or PE4710 as indicated in ASTM F 714 and shall be manufactured with an SDR of 17 and in compliance with ASTM D 2683.

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

**Barry Gupton, PE**  
**Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 8

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

*803.4: Replace "which" with "that" both places.*

**803.4 Acid soil and waste piping.** For engineered acid soil and waste drainage systems, the type of pipe shall be selected by a registered design professional. For non-engineered acid soil and waste drainage systems, the piping shall be of a material that is designed and recommended by the manufacturer as suitable for the type of waste drained. Piping shall be installed in accordance with the manufacturer's installation instructions. When installed within buildings, piping of combustible materials shall be of a flame-retardant type rated at least V-2 in accordance with UL-94. Concentrations of acid waste that are sufficient to adversely affect the conventional drainage system shall be suitably diluted or neutralized before interconnection. Fittings shall conform to the type of piping used.

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

**Barry Gupton, PE**  
**Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 9

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

905.4: Should this be "Exceptions"?

**Yes. Plural added.**

915.2.3: On Page 193 of the packet, should this be 915.2.4? That is how it is numbered in the IPC. And if so, should the next one be 915.2.5?

***The IPC text is deleted for 915.1 through 915.2.3. NC reused the numbers.***

**915.1 Approval.** Plans and specifications for each combination waste and vent system shall be submitted to the plumbing official, and approval shall be obtained before any installation is started.

**915.2 Limits.**

**915.2.1** A combination waste and vent system is limited to sinks, dishwashers, floor sinks, indirect waste receptors, floor drains or similar applications where the fixtures are not adjacent to walls or partitions. It consists of the installation of waste piping in which the trap of the fixture is not individually vented.

**915.2.2** Appurtenances delivering large quantities of water or sewage (such as pumps) shall be excluded in a combination waste and vent system in order that adequate venting will be maintained.

**915.2.3 Deleted.**

**915.2.4 Vent size.**

The vent shall be sized for the total *drainage fixture unit* load in accordance with Section 906.2.

**915.2.5 Fixture branch or drain.**

The *fixture branch* or *fixture drain* shall connect to the combination waste and vent within a distance specified in Table 909.1. The combination waste and vent pipe shall be considered the vent for the fixture.

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: July 26, 2017

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road,  
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**Barry Gupton, PE**  
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Amanda J. Reeder  
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Date submitted to agency: July 26, 2017

## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 10

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

*1002.1: In Exception 2, given the additional language, I suggest changing "is permitted" to "shall be permitted"*

2. A combination plumbing fixture or up to three similar fixtures **is shall be** permitted to be installed on one trap, provided that one compartment is not more than 6 inches (152 mm) deeper than the other compartment and the waste outlets are not more than 30 inches (762 mm) apart.

*1003.3.1: Will the determination of whether to permit be within the discretion of the code official?*

**Yes. Approval is by the code official.**

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

**Barry Gupton, PE**  
**Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 11

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

1105.1.2: *What is "normally serviced"? Does your regulated public know?*

**Yes. Routine maintenance.**

1105.1.3: *Replace "which" with "that"*

**1105.1.3 Roof drain flashings.** The connection between roofs and roof drains that pass through the roof and into the interior of the building shall be made water-tight by the use of approved flashing material.

Figure 1106.1: *So that I'm clear – the figures on Page 213 – 216 will be replaced by the figure on Page 217 of the packet?*

**Correct.**

1113.1.4: *Given the additional language to 1101.1, exempting one- and two- family dwellings from the chapter, do you need the Exception here?*

**I would leave the standard ICC exception.**

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

**Barry Gupton, PE  
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Date submitted to agency: July 26, 2017

## REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Chapter 13

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

*1301.2.3.1 and 1301.2.3.2: Please end each of the items in the list with punctuation. While I'd prefer semicolons, if you want to be consistent with the rest of the code and use periods, that is fine, too.*

*And in 1301.2.3.1, item 4, there is a period in "e.g."*

### **1301.2.3.1 Examples of Acceptable Uses without Treatment.**

1. Outdoor **Irrigation.**
2. Decorative **Fountains.**
3. Yard **Hydrants.**
4. Industrial Processes (**e.g.** Dust Control, Indoor Hose Bibs **Spray).**
5. Vehicle **Washing.**
6. Outdoor Hose Bibs (not routed through building **wall).**

### **1301.2.3.2 Examples of Acceptable Uses with Disinfection and Filtration.**

1. Toilet **Flushing.**
2. Urinal **Flushing.**
3. Evaporative Cooling Tower **Make-up.**
4. Trap **Primers.**
5. Fire Suppression **Systems.**
6. Clothes **Washers.**
7. Outdoor Pools and **Spas.**
8. Hose Bibs – **Residential.**

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1301.9.11: In the Exception, should it read “the system shall be pressurized...”?

Also, why do you have “of the International Plumbing Code”? Since that is this Code, do you need it? I note you do not have this language when you are cross-referencing this Code in other places.

**1301.9.11 Storage tank tests.**

Storage tanks shall be tested in accordance with the following:

Storage tanks shall be filled with water to the overflow line prior to and during inspection. All seams and joints shall be left exposed and the tank shall remain water tight without leakage for a period of 24 hours.

**Exception:** If air testing, the system shall be pressurized with air equivalent to the water pressure for the full depth of the tank in accordance with Section 312.5 of this code.

1302.10: In the Exception, isn't “sillcocks” one word? You use it as one word earlier in this Chapter.

**1302.10 Water pressure-reducing valve or regulator.**

Where the water pressure supplied by the pumping system exceeds 80 psi (552 kPa) static, a pressure-reducing valve shall be installed to reduce the pressure in the non-potable water distribution system piping to 80 psi (552 kPa) static or less. Pressure-reducing valves shall be specified and installed in accordance with Section 604.8.

**Exception:** Service lines to sillcocks and outside hydrants, and main supply risers where pressure from the mains is reduced to 80 psi (552 kPa) or less at individual fixtures.

1303.3: What is “undesirable” material? Does your regulated public know?

**Retain “similar” for better description.**

**1303.3 Debris excluders.**

Downspouts and leaders shall be connected to a roof washer and shall be equipped with a debris excluder or equivalent device to prevent the contamination of collected rainwater with leaves, sticks, pine needles and similar undesirable material. Debris excluders and equivalent devices shall be self-cleaning.

1303.13: In the Exception, isn't “sillcocks” one word? You use it as one word earlier in this Chapter.

**1303.13 Water pressure-reducing valve or regulator.**

Where the water pressure supplied by the pumping system exceeds 80 psi (552 kPa) static, a pressure-reducing valve shall be installed to reduce the pressure in the rainwater distribution system piping to 80 psi (552 kPa) static or less. Pressure-reducing valves shall be specified and installed in accordance with Section 604.8.

**Exception:** Service lines to sillcocks and outside hydrants, and main supply risers where pressure from the mains is reduced to 80 psi (552 kPa) or less at individual fixtures.

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1303.15.6: You deleted Section 312.10. Should there be a different cross-reference here?

**Delete to coordinate with 312.10.**

**1303.15.6 Inspection and testing of backflow prevention assemblies. Deleted.**

~~The testing of backflow preventers and backwater valves shall be conducted in accordance with Section 312.10.~~

1304.2: In the Exception, isn't "sillcocks" one word? You use it as one word earlier in this Chapter.

**1304.2 Water pressure-reducing valve or regulator.**

Where the reclaimed water pressure supplied to the building exceeds 80 psi (552 kPa) static, a pressure-reducing valve shall be installed to reduce the pressure in the reclaimed water distribution system piping to 80 psi (552 kPa) static or less. Pressure-reducing valves shall be specified and installed in accordance with Section 604.8.

**Exception:** Service lines to sillcocks and outside hydrants, and main supply risers where pressure from the mains is reduced to 80 psi (552 kPa) or less at individual fixtures.

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

**Barry Gupton, PE**  
**Chief Code Consultant**

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: July 26, 2017

REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Plumbing Code, Appendix C, E

**DEADLINE FOR RECEIPT: Wednesday, August 9, 2017**

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:

*Are these being adopted as part of the Plumbing Code, such that compliance with these are mandatory?*

***No. It is not specifically adopted.***

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

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Date submitted to agency: July 26, 2017