

Minutes of the North Carolina Building Code Council
June 15th, 2010
Raleigh, NC

All members of the North Carolina Building Code Council were present for the Public Hearing and Meeting with the exception of Paula Strickland, Ed Moore and Jack Neel.

The following are summary minutes. The official minutes of this meeting are recorded on CD. Anyone desiring verbatim CDs or excerpts from these CDs should contact the Engineering Division of the NC Department of Insurance for information and reproduction costs. The next scheduled NC Building Code Council meeting will be held September 13-14, 2010 at the NCSU McKimmon Center, 1101 Gorman Street, Raleigh, North Carolina, 27606.

Part A – Administrative Items

Item A – 1 Ethics Statement: Inquire upon conflicts of interest or appearance of conflicts of interest that exist within the Council.

There were no actual or potential conflicts of interest noted.

Item A – 2 Approval of minutes of the March 9, 2010 NC Building Code Council Meeting.

The council identified two items of concern. Under Item D-10 of the March 9th meeting, the council asked that the substitute language be included in the amendment identified within the minutes. In addition, under item E, the board's attorney asked that his comments be corrected.

The motion to approve the minutes with the two corrections was made and seconded. The motion was approved unanimously.

Item A – 3 Rules Review Commission Meeting Report

Nothing was reported at this time during the meeting.

Later in the meeting, it was identified that the temporary rule for purging gas pipe (Item C-14) had expired. Ralph Euchner made the motion to draft another temporary rule identical to C-14. This motion was seconded by Mack Nixon and approved unanimously by the council.

Item A – 4 Public Comments

No one spoke at this time.

Part B – New Petitions for Rulemaking

The following Petitions for Rulemaking have been received since the last Council meeting. The Council will vote either to deny or grant these Petitions. The Council will give no further consideration to Petitions that are denied. Petitions that are granted may proceed through the Rulemaking process. The Council may send any Petition to the appropriate committee. The public hearing regarding these petitions will take place during or after the September 2010 meeting.

Item B – 1 Request by Curt Willis and Rusty Styons, to amend the 2009 NC Residential Code, Sections R703.11. The proposed amendment is as follows:

R703.11.2 Soffit. In One- and Two-Family Dwellings of combustible construction, the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material, fire retardant treated soffit material, vinyl soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board, or aluminum soffit installed over ¾ inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall apply to both soffit and underlayment and shall be per section R806 of the NCSRC.

R703.11.3 Flame Spread. Vinyl siding and vinyl soffit materials, when used in One- and Two-Family Dwelling construction, shall have a Flame Spread Index of 25 or less as tested in accordance with ASTM E-84.

A motion to approve the petition was made by David Smith and seconded by Alan Perdue. The motion was approved unanimously and the Chairman referred the petition to the residential committee.

Staff Note: All of Item B-1 is new language.

Item B – 2 Request by James Bartl, with Mecklenburg County and Jim Tschupp, with the City of Raleigh, to amend the 2009 NC Administrative Code and Policies, Section 106.2.3.1. The proposed amendment is as follows:

106.2.3.1 Building Information Modeling – Integrated Project Delivery Projects

Projects employing a Building Information Modeling – Integrated Project Delivery (BIM-IPD) process will replace the requirements of 106.2.3, with the following permitting and inspection steps:

- a). At the project start, the owner’s project team (Architect, Engineer, Contractor, et al) will reach agreement with the Code Enforcement Official (CEO) on the prevailing code compliance strategy for the full scope of the project, to be documented in an electronic Appendix B format or an equivalent format, acceptable to the CEO.
- b). The CEO will issue a single project master permit, based on the initial project description and code compliance strategy agreement.
- c). The CEO will work collaboratively to review building components or details as scheduled by the owner’s project team.
- d). Concurrence on compliance with the code, with respect to both the model and built product, will be gained before inspections are approved.
- e). The owner’s project team will submit an as built model, at project substantial completion, documenting compliance with the NC State Building Code, for records retention by the AHJ.

Jim Bartl spoke to this issue and explained the BIMS [Building Information Modeling System] and IPD [Integrated Product Delivery]. BIMS is a 3 dimensional modeling system that integrates all of the trades that may not be compatible with the prescriptive approach given within the Administrative Code and Policies and that this change is given as an option to designers.

A motion to approve the petition was made by Al Bass and seconded by Kim Reitterer. The motion was amended by Lon McSwain to appoint a new Ad-Hoc committee made up of representatives from the members of the administrative committee, building committee and the industry. The motion was approved unanimously and the Chairman will appoint a BIMS AD-Hoc Committee to address this committee.

Item B – 3 Request by Jonah Butcher and Jeff Tiller, Energy Ad-Hoc Committee, to amend the 2012 NC Energy Conservation Code, Section 503.2.9. The proposed amendment is as follows:

~~**503.2.9 HVAC system completion.** Prior to the issuance of a certificate of occupancy, the design professional shall provide evidence of system completion in accordance with Sections 503.2.9.1 through 503.2.9.3.~~

~~**503.2.9.1 Air system balancing.** Each supply air outlet and zone terminal device shall be equipped with means for air balancing in accordance with the requirements of Chapter 6 of the *International Mechanical Code*. Discharge dampers are prohibited on constant volume fans and variable volume fans with motors 10 horsepower (hp) (7.4 kW) and larger.~~

~~**503.2.9.2 Hydronic system balancing.** Individual hydronic heating and cooling coils shall be equipped with means for balancing and pressure test connections.~~

~~**503.2.9.3 Manuals.** The construction documents shall require that an operating and maintenance manual be provided to the building owner by the mechanical contractor. The manual shall include, at least, the following:~~

- ~~1. Equipment capacity (input and output) and required maintenance actions.~~
- ~~2. Equipment operation and maintenance manuals.~~
- ~~3. HVAC system control maintenance and calibration information, including wiring diagrams, schematics, and control sequence descriptions. Desired or field determined set points shall be permanently recorded on control drawings, at control devices or, for digital control systems, in programming comments.~~
- ~~4. A complete written narrative of how each system is intended to operate.~~

503.2.9 HVAC System Completion. Prior to the issuance of a certificate of occupancy, the following shall be completed.

Exception: A temporary certificate of occupancy shall be allowed to be issued when requested prior to the completion of this section.

503.2.9.1 System balancing. All HVAC systems shall be balanced by contractor. Test and balance activities shall include as a minimum the following items:

503.2.9.1.1 Air systems balancing. Each supply air outlet and zone terminal device shall be equipped with means for air balancing in accordance with the requirements of Chapter 6 of the North Carolina Mechanical Code. Discharge dampers are prohibited on constant volume fans and variable volume fans with motors 10 hp (7.5 kW) and larger.

Exception:

1. Fan with fan motors of 1 hp or less.

503.2.9.1.2 Hydronic systems balancing. Individual hydronic heating and cooling coils shall be equipped with means for balancing and pressure test connections. Hydronic systems shall be balanced in a manner to first minimize throttling losses, then the pump impeller shall be trimmed or pump speed shall be adjusted to meet design flow conditions. Each hydronic system shall have either the ability to measure pressure across the pump, or test ports at each side of each pump.

Exceptions:

1. Pumps with pump motors of 5 hp or less.
2. When throttling of an individual pump results in no greater than 5% of the nameplate horsepower draw above that required if the impeller were trimmed.

503.2.9.2 Manuals. An operating and maintenance manual shall be provided to the building owner by the contractor. The manual shall include, at least, the following:

1. Submittal data stating equipment model number and capacity (input and output) and selected options for each piece of equipment.
2. Manufacturer's operation manuals and maintenance manuals for each piece of equipment requiring maintenance, except equipment not furnished as part of the project. Required routine maintenance actions shall be clearly identified.
3. Name and address of at least one service agency.
4. HVAC controls system maintenance and calibration information, including wiring diagrams, schematics, and control sequence descriptions. Desired or field-determined set points shall be permanently recorded on control drawings at control devices or, for digital control systems, in programming comments.
5. A complete narrative of how each system is intended to operate.
6. Names and addresses of designers of record, contractors, major subcontractors and equipment suppliers.

503.2.9.3 System installation statement. A North Carolina licensed design professional shall prepare and sign the *Statement of Compliance – HVAC System Installation (Appendix C)*. This statement shall be submitted to the code official and the facility owner.

Exception:

1. The HVAC contractor will be allowed to prepare the *Statement of Compliance* when a building permit is issued for a project without the seal of a licensed design professional as allowed by an exception under NC State Building Administrative Code and Policies: 204.3.5.

503.2.9.3.1 Equipment. Equipment installation and operation shall be verified, to the extent feasible, to be in accordance with approved plans and specifications.

Verification shall include demonstration of operation of components, systems and system-to-system interfacing relationships.

503.2.9.3.2 Controls. Controls installation and operation shall be verified, to the extent feasible, to be in accordance with approved plans and specifications. Verification shall include demonstration of operation of control devices, systems and system-to-system interfacing relationships. Control sequences shall be functionally verified, to the extent feasible, to demonstrate operation in accordance with the intent of the approval plans and specifications.

APPENDIX C

Statement of Compliance – HVAC System Installation

Project Name: _____

Project Location: _____

In my professional opinion, the HVAC systems have been installed and are in substantial compliance with the intent of the approved project plans and specifications based on a site observation performed on _____ and upon review of the following: _____ date(s)

<u>Yes</u>	<u>No</u>	<u>Not Required</u>	<u>Items</u>	<u>Comments</u>
			<u>Testing and Balance Report</u>	
			<u>Operations and maintenance manuals</u>	
			<u>HVAC Equipment</u>	
			<u>Control sequences</u>	

Name: _____

Signature: _____

Date: _____

Seal: _____

David Smith moved that this petition be accepted and referred to the Energy committee for incorporation into the Energy Code identified in Item C-12. The motion was seconded by Lon McSwain. The council voted unanimously to accept the motion. This item will be advertised for the December hearing if necessary.

Item B – 4 Request by Alan Perdue and Lon McSwain to amend the 2012 NC Residential Code, Section R501.3. The proposed amendment is as follows:

R501.3 Fire Protection of Floors. Floor assemblies, not required elsewhere in this code to be fire resistance rated, shall be provided with a ½-inch gypsum wallboard membrane, 5/8-inch wood structural panel membrane, or equivalent on the underside of the floor framing member.

Exceptions:

1. Floor assemblies located directly over a space protected by an approved automatic sprinkler system in accordance with NFPA 13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions of floor assemblies can be unprotected when complying with the following:
 - 3.1 The aggregate area of unprotected portions shall not exceed 80 square feet per story.
 - 3.2 Fire blocking in accordance with R302.11.1 shall be installed along the perimeter of the unprotected portions to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10 inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

John Hitch moved that this motion be accepted and was seconded by Lon McSwain. The council voted unanimously to accept the motion and the chairman deferred the petition to the Residential Committee.

Item B – 5 Request by Alan Perdue to amend the 2012 NC Residential Code, Sections R302.2 and R313.1. The proposed amendment is as follows:

R302.2 Townhouses. Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exception: If an automatic residential fire sprinkler is installed, a common 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119 or UL263 is permitted for townhouses if such walls to not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Section R302.4.

R313.1 Townhouse Automatic Fire Sprinkler Systems. An automatic residential fire sprinkler system shall be installed in townhomes.

Exceptions:

1. Townhomes constructed with a common 2-hour fire resistance rated wall in accordance with ASTM E119 or UL 263 provided such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations for electrical outlet boxes shall be in accordance with Section R302.4.
2. An automatic residential fire sprinkler system shall not be required when additions or alternations are made to existing townhomes that do not have an automatic residential fire sprinkler system installed.

Kim Reitterer moved that this motion be accepted and was seconded by Lon McSwain. The council voted unanimously to accept the motion and the chairman deferred the petition to the Residential Committee.

Part C – Notice of Rulemaking Proceedings and Public Hearing

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing was held June 15, 2010 and the Final Adoption meeting may take place on or after September 14, 2010. The written public comment period expires on July 16, 2010. Contact the Engineering Division for copies of written public comment or recordings of the Item C testimony.

Item C – 1 Request by Robert Kinniburgh, to amend the 2009 NC Fire Prevention Code, Section 2403. The proposed amendment is as follows:

SECTION 2403 – TEMPORARY TENTS, CANOPIES AND MEMBRANE STRUCTURES

2403.5 Use Period. Temporary tents, air-supported, air inflated or tensioned membrane structures and canopies ~~shall not be erected for period more than 180 days within a 12 month period on a single premise~~ shall be erected for a period of less than 180 consecutive days or a maximum of 179 days in any 12 month period.

2403.8.2 Location. Tents and canopies or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered part of the temporary membrane structure, tent or canopy.

Exceptions:

1. Separation distance between membrane structures, tents and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet (1394 m²).
2. Membrane structures, tents and canopies need not be separated from buildings when all of the following conditions are met:
 - 2.1 The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet (929 m²).
 - 2.2 ~~The aggregate floor area of the building and membrane structure, tent or canopy~~

~~shall not exceed the allowable floor area including increases as indicated in the *International Building Code*.~~

- 2.3 Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distance.
- 2.4 Fire apparatus access roads are provided in accordance with Section 503.

Rob Kinniburgh, City of Charlotte Fire Marshal, recommends the Council adopt this code change.

Item C – 2 Request by Art Weirauch, with Omega Flex, Inc., to amend the 2009 NC Fuel Gas Code, Section 310.2. The proposed amendment is as follows:

Add to Section 310.2

Exception: CSST which has been tested and shown to be resistant to lightning energy shall be bonded in accordance with the National Electrical Code NFPA 70 and the CSST manufacturer’s installation instructions.

Art Weirauch, with Omega Flex, Inc., recommends the Council adopt this code change.

Wayne Hamilton, Fire Service Code Revision Committee, opposed the code change.

Bob Torbin recommends the Council adopt this code change.

Dave Burke, with Gastite, opposed the code change

Vaughn Wicker, ICC, opposed the code change.

Item C – 3 Request by David Smith, Building Code Council, to amend the 2009 NC Residential Code, FIGURE R301.2(4). The proposed amendment is as follows:

BASIC DESIGN WIND VELOCITIES FOR MOUNTAIN REGIONS

FIRST FLOOR FINISH CONTROLLING ELEVATION IN FEET^{1,2,3,4,5} DESIGN WIND (MPH)

Less than 2,700 or less	90
2,700 to <u>less than</u> 3,000 feet	100
3,000 to <u>less than</u> 3,500 feet	110
3,500 to <u>less than</u> 4,500 feet	120
4,500 feet <u>or greater and above</u>	130

For SI: 1 foot = 304.8, 1 mile per hour = 0.44 m/s.

- ~~1. Wind velocities are to apply to all mountain tops, crests, knobs, or peaks as named on the USGS Quadrangle maps.~~
- ~~2. Effect of the 130 mph wind is to extend downward from crest for 200 feet or to the controlling elevation for 120 mph wind, whichever is the lesser.~~
- ~~3. Effect of the 120 mph wind is to extend downward from crest for 100 feet or to the controlling elevation for 110 mph wind, whichever is the lesser.~~
- ~~4. Effect of the 110 mph wind is to extend downward from crest for 70 feet or to the controlling elevation for 100 mph wind, whichever is the lesser.~~
- ~~5. Effect of the 100 mph wind is to extend downward from crest for 50 feet or to the controlling elevation for 90 mph wind, whichever is the lesser.~~

FIGURE R301.2(4)—continued BASIC DESIGN WIND SPEEDS FOR 50-YEAR MEAN RECURRENCE INTERVAL - Delete the Mountain Peak DIAGRAM

There were no comments from the public on this item.

Item C – 4 Request by David Smith, Building Code Council, to amend the 2009 NC Residential Code, Section R202 Definitions. The proposed amendment is as follows:

ATTIC STORAGE. A floored area, regardless of size, within an attic space that is served by an attic access.

Exception: A floor walkway not less than 24 inches wide or greater than 48 inches wide that serves as an access for the service of utilities and/or equipment, and a level service space not less than 30 inches deep or greater than 48 inches deep and not less than 30 inches wide or greater than 48 inches wide at the front or service side of the appliance, shall not be considered as attic storage. Such floored area shall be labeled at the attic access opening, “NOT FOR STORAGE”. The lettering shall be a minimum of 2 inches in height.

There were no comments from the public on this item.

Item C – 5 Request by Kevin Cochran, with Free Rain, to amend the 2009 NC Plumbing Code, APPENDIX I. The proposed amendment is as follows:

SECTION I101 GENERAL

I101.1 Scope. The provisions of this appendix shall govern the materials, design, construction and installation of rain water systems for automatic clothes washers, flushing of water closets, flushing of urinals, and cooling tower make up water, and cleaning applications (i.e. equipment washing, floor washing, indoor/outdoor spigots). Nothing in this appendix shall be construed to restrict the use of rain water for outdoor irrigation.

I101.3 Definition. The following terms shall have the meaning shown herein.

CONDENSATE. Condensed water collected from the surfaces of an air conditioning unit's evaporator coils or a dehumidifier unit's evaporator coils.

RAIN WATER. Water collected from runoff of roofs or other structures after a rain event. Rain water may also include condensate.

I101.4 Permits. Check with the local authority having jurisdiction for permit requirements.

I101.5 Installation. In addition to the provisions of Section I101, systems for flushing of water closets, flushing of urinals, and cooling tower make up water shall comply with Section I102. Except as provided for in Appendix I, all systems shall comply with the provisions of the 2006 North Carolina State Plumbing Code.

I101.6 Materials. Above-ground drain, waste and vent piping for rain water systems shall conform to one of the standards listed in Table 702.1. Rain water underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

I101.7 Tests. Drain, waste and vent piping for rain water systems shall be tested in accordance with Section 312.

I101.8 Inspections. Check with the local authority having jurisdiction for inspection requirements.

I101.9 Potable water connections. Only connections in accordance with Section I102.3 shall be made between a rain water harvesting system and a potable water system.

I101.10 Collection reservoir. Rain water shall be collected in an approved reservoir constructed of durable, nonabsorbent and corrosion-resistant materials. The reservoir shall be a closed vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior.

I101.11 Filtration. Rain water shall pass through filter system suitable for intended use prior to distribution.

I101.12 Overflow. The overflow pipe discharge shall indirectly flow to the normal storm water drainage system and shall be sized equal to or larger than the influent pipe.

I101.13 Drain. A method for draining the collection reservoir shall be provided and shall not be connected to the sanitary drainage.

I101.14 Venting required. The reservoir shall be provided with venting to allow for the induction and release of air to allow for the proper operation of the reservoir.

SECTION I102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

I102.2 Disinfection. Rain water shall be disinfected by an approved method that employs one or more disinfectants, such as chlorine, iodine, ozone, UV, or other approved disinfectants.

I102.3 Makeup water. Potable water shall be supplied as a source of makeup water for the rain water system. The potable water supply shall be protected against backflow by the installation of an air gap device or in accordance with Section 608.

I102.4 Materials. Distribution piping shall conform to one of the standards listed in Table 605.4.

I102.5 Identification. Distribution plumbing fixtures and reservoirs shall be identified as containing non-potable water. Piping shall be purple and identified in accordance with Section 608.8.

There were no comments from the public on this item.

Item C – 6 2012 NC Building Code Amendments

A petition put forward by John Hitch to adopt the ad-hoc committee amendments to the 2009 ICC Building Code for publication as the 2012 NC Building Code.

Randy Shackelford recommends either changing the text of 1609.1.2 to read 140 mph or changing the Table to read 130 mph.

Item C – 7 2012 NC Fire Code Amendments

A petition put forward by Alan Perdue to adopt ad-hoc committee amendments to the 2009 ICC Fire Code for publication as the 2012 NC Fire Code.

Rob Kinniburgh, City of Charlotte Fire Marshal, requested that three items in the 2009 Fire Code language be brought forward.

Item C – 8 2012 NC Fuel Gas Code Amendments

A petition put forward by Ralph Euchner to adopt ad-hoc committee amendments to the 2009 ICC Fuel Gas Code for publication as the 2012 NC Fuel Gas Code.

There were no comments from the public on this item.

Item C – 9 2012 Mechanical Code Amendments

A petition put forward by Al Bass to adopt ad-hoc committee amendments to the 2009 ICC Mechanical Code for publication as the 2012 NC Mechanical Code.

There were no comments from the public on this item.

Item C–10 2012 Plumbing Code Amendments

A petition put forward by Al Bass to adopt ad-hoc committee amendments to the 2009 ICC Plumbing Code for publication as the 2012 NC Plumbing Code.

There were no comments from the public on this item.

Item C-11 2012 Residential Code Amendments (with Townhouse Sprinklers)

A petition put forward by David Smith to adopt ad-hoc committee amendments to the 2009 ICC Residential Code for publication as the 2012 NC Residential Code.

Wes Greene, Mooresville Fire Chief, recommends the Council adopt these amendments.

Frank Burns, King's Mountain Fire Chief, recommends the Council adopt these amendments.

Jim Roberts, Engineer, recommends the Council adopt these amendments.

Rob Kinniburgh, City of Charlotte Fire Marshal, recommends the Council adopt these amendments.

Randy Safer, NFPA, recommends the Council adopt these amendments.

Bonnie Woodruff recommends the Council adopt these amendments.

Pam Elliot, Burn Survivor, recommends the Council adopt these amendments.

Elizabeth Cox, Habitat for Humanity, recommends the Council adopt these amendments.

Don Fleenor, SFPE, recommends the Council adopt these amendments.

David Douglas, Greensboro Fire Marshal, recommends the Council adopt these amendments.

Floyd Fritz, Pinehurst Fire Marshal, recommends the Council adopt these amendments.

Wayne Hamilton, City of Asheville, recommends the Council adopt these amendments.

John McGraph, City of Raleigh Fire Chief, recommends the Council adopt these amendments.

Randall Harris, Fire Sprinkler Contractor, recommends the Council adopt these amendments.

Item C-11(A) 2012 Residential Code Amendments (without Townhouse Sprinklers)

The Chairman identified that a parallel code change for the Residential Code be prepared without sprinklers so that this does not slow the adoption of the overall code.

Robert Privott, NC Home Builders Association, recommends the Council adopt these amendments.

David Presley, Apartment Manager, recommends the Council adopt these amendments.

Jim Graves, Contractor, recommends the Council adopt these amendments.

Marshall Knight, Home Builder, recommends the Council adopt these amendments.

Joe Ussery, Home Builder, recommends the Council adopt these amendments.

Matt Dobson, VSI, recommends the Council adopt these amendments.

Marilyn Buntz, Contractor, recommends the Council adopt these amendments.

Item C-12 2012 Energy Conservation Code

A petition put forward by Tom Turner to adopt ad-hoc committee amendments to the 2009 ICC Energy Conservation Code for publication as the 2012 NC Energy Conservation Code.

Renee Hutcheson, AIA, with the State Energy Office, recommends the Council adopt these amendments.

Billy Hinton, NCDOT Staff, read a letter from Commissioner Wayne Goodwin, recommending the Council adopt these amendments.

Bruce Davis, Appalachian State University Energy Center, recommends the Council adopt these amendments.

Robert Privott, NC Home Builders Association, opposes these amendments.

Marilyn Buntz, Onslow County, with Town & Country Building Company, opposes these amendments.

Wendy Purser, owner of Hampstead Pool, Spa & Patio Inc., and a representative of the Association of Pool & Spa Professionals of NC, is concerned about the miscommunication of language. She will be submitting clarification language prior to July 16th.

Jeff Farlow, with Pentair Water, Pool & Spa, and a representative of the Association of Pool & Spa Professionals of NC Energy Committee, is concerned with the interpretation of pool time switches term. He will be submitting clarification language.

Billy Hilton, Home Builder, opposes these amendments.

Duke Garrity, Home Builder, opposes these amendments.

Chris Mathis recommends the Council adopt these amendments.

Molly Diggins, State Director of the NC Chapter Sierra Club, recommends the Council adopt these amendments and will be submitting more extensive commentary.

Marshall Knight, Contractor, opposes these amendments.

Bryan Readling, with APA, opposes these amendments.

Chuck Anderson, with the American Architectural Manufacturer's Association, opposes these amendments.

Jeff Tiller, Appalachian State University Department of Technology, recommends the Council adopt these amendments.

Item C-13 Energy System Verification

A petition put forward by Tom Turner to address HVAC verification in parallel to the adoption of the Energy Conservation code. This was taken out of the adoption for the Energy Conservation Code with concern that questions of this section would slow adoption of the overall code.

Renee Hutcheson, AIA, with the State Energy Office, gave a synopsis of this item.

Chris Mathis recommends the Council adopt this item.

Duke Garrity, Home Builder, opposes this item.

Item C-14 Request by Alan Perdue, NCBC, as amended by Ralph Euchner, NCBC, to amend the 2009 Fuel Gas Code, Section 406.7. The proposed amendment is as follows:

406.7 Purging. Purging of 2 ½ inch nominal pipe size or larger piping shall comply with Sections 406.7.1 through 406.7.4.

406.7.1 Removal from service. Where gas piping is to be opened for servicing, addition, or modification, the section to be worked on shall be turned off from the gas supply at the nearest convenient point, and the line pressure vented to the outdoors, ~~or to ventilated areas of sufficient size to prevent accumulation of flammable mixtures.~~ The remaining gas in this section of pipe shall be displaced with an inert gas as required by Table 406.7.1.

Exception: If the line pressure cannot be vented to the outdoors; the building and all effected spaces shall be evacuated of personnel not involved with purging the gas lines, quantities of flammable gas shall not exceed 25% of the lower explosive limit (1.0% fuel / air mixture for natural gas or 0.6% fuel / air mixture for LP gas) as measured by a combustible gas detector, eliminate all ignition sources and provide adequate ventilation to prevent accumulation of flammable gases.

TABLE 406.7.1
SIZE AND LENGTH OF PIPING REQUIRING PURGING WITH INERT GAS FOR SERVICING OR MODIFICATION

NOMINAL PIPE SIZE (Inches)	LENGTH OF PIPING REQUIRING PURGING
2½	> 50 feet
3	> 30 feet
4	> 15 feet
6	> 10 feet
8 or larger	Any length

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

406.7.2 Placing in operation. Where piping full of air is placed in operation, the air in the piping shall be displaced with fuel gas, except where such piping is required by Table 406.7.2 to be purged with an inert gas prior to introduction of fuel gas. The air can be safely displaced with fuel gas provided that a moderately rapid and continuous flow of fuel gas is introduced at one end of the line and air is vented out

at the other end. The fuel gas flow shall be continued without interruption until the vented gas is free of air. The point of discharge shall not be left unattended during purging. After purging, the vent shall then be closed. Where required by Table 406.7.2, the air in the piping shall first be displaced with an inert gas, and the inert gas shall then be displaced with fuel gas.

TABLE 406.7.2
SIZE AND LENGTH OF PIPING REQUIRING PURGING WITH INERT GAS BEFORE PLACING IN OPERATION

NOMINAL PIPE SIZE (Inches)	LENGTH OF PIPING REQUIRING PURGING
3	> 30 feet
4	> 15 feet
6	> 10 feet
8 or larger	Any length

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

406.7.3 Discharge of purged gases. The open end of piping systems being purged shall not discharge into confined spaces or areas where ~~quantities of flammable gas can exceed 25% of the lower explosive limit as measured by a combustible gas detector.~~ there are sources of ignition unless precautions are taken to perform this operation in a safe manner. ~~by ventilation of the space, control of purging rate and elimination of hazardous conditions~~ All potential sources of ignition shall be identified and eliminated or controlled. Precautions shall be taken to maintain the concentration of the flammable gas below 25% of the lower explosive limits (1.0% fuel / air mixture for natural gas or 0.6% fuel / air mixture for LP gas) such as adequate ventilation and control of purging rate. ~~and other measures as appropriate for the elimination of all hazardous conditions.~~ The point of discharge shall not be left unattended during purging.

406.7.4 Placing appliances and equipment in operation. After the piping system has been placed in operation, all appliances and equipment shall be purged and then placed in operation, as necessary.

406.7.5 Personnel Training. Personnel performing purging operation shall be trained to the hazards associated with

purging and shall not rely on odor when monitoring the concentration of combustible gas.

Wayne Hamilton, City of Asheville, expressed concern about the Pipe Size.

Part D – Final Adoption

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings and Public Hearing has been made. The Public Hearings were held March 8, 2010. The Final Adoption meeting took place on June 15, 2010. The Council will give no further consideration to Petitions that are disapproved. Petitions that are approved will proceed through the Rulemaking process.

Item D – 1 Request by Bryan Reading, PE, to amend the 2009 NC Building Code, Table 503. The proposed amendment is as follows:

Add the following footnote (e) to table 503, Allowable Height and Building Areas

e. For group B, Group R-1 and Group R-2 Occupancies of Type V-A construction, the permitted increase of one story allowed by Section 504.2 may be increased to two stories and the maximum building height may be increased by 20 feet when all of the following conditions are met:

1. An automatic fire-extinguishing system complying with Section 903.3.1.1 (NFPA 13) is installed throughout with the installation of quick-response sprinkler heads in all areas where the use of these heads is allowed by NFPA 13.
2. Vertical exit enclosures are constructed as Smoke proof enclosures in accordance with Section 909.20.

Add footnote “e” to three cells in table 503

Type V-A, group B, R-1 and R-2

Alan Perdue made a motion to disapprove this petition, seconded by Mack Nixon. The council voted unanimously to accept the motion and the petition is disapproved.

Item D – 2 Request by Louie Mullikin, with ALM Investments d.b.a Bath Fitter, to amend the 2009 NC Plumbing Code, Section 417.3 and Table 709.1. The proposed amendment is as follows:

417.3 Shower waste outlet.

Exception: Retaining pre-existing 1 ½ inch in diameter waste outlets shall be permitted when removing an existing bathtub and installing in its place a shower.

Table 709.1 shall be correspondingly amended to reduce the minimum size of trap for a shower from ~~2 inches~~ to 1 ½ inches.

Al Bass made a motion to approve this petition, seconded by Kim Reitterer. The council voted unanimously to accept the motion and the petition is approved.

The council agreed to make the effective date for this change January 1, 2012.

Item D – 3 Request by William Rakatansky, FAIA, to amend the 2009 NC Fire Code, Section 3405.5.1. The proposed amendment is as follows:

3405.5.1 Corridor installations. Where wall-mounted dispensers containing alcohol-based hand rubs are installed in *corridors*, they shall be in accordance with all of the following:

1. ~~Aerosol containers shall not be allowed in corridors.~~ Level 2 and Level 3 aerosol containers shall not be allowed in corridors.
2. The maximum capacity of each Class I or II liquids dispenser shall be 41 ounces (1.21 L) and the maximum capacity of each Level 1 aerosol dispenser shall be 18 ounces (0.51 kg).
3. The maximum quantity allowed in a *corridor* within a *control area* shall be 10 gallons (37.85 L) of Class I or II liquids or 1135 ounces (32.2 kg) of Level 1 aerosols, or a combination of Class I or II liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gallons (37.85 L) or 1135 ounces (32.2 kg) such that the sum of the ratios of the liquid and aerosol quantities divided by the allowable quantity of liquids and aerosols, respectively, shall not exceed one.
4. The minimum *corridor* width shall be 72 inches (1829 mm).

5. Projections into a *corridor* shall be in accordance with Section 1003.3.3.

Alan Perdue made a motion to approve this petition, seconded by Lon McSwain. The council voted unanimously to accept the motion and the petition is approved.

The council agreed to make the effective date for this change January 1, 2012.

Item D – 4 Request by David Smith, NC Building Code Council, to amend the 2009 NC Residential Code, Section R802.3.1. The proposed amendment is as follows:

R802.3.1 Ceiling joist rafter connections. Ceiling joists and rafters shall be nailed to each other in accordance with Table R802.5.1(9), and the rafter shall be nailed to the top wall plate in accordance with Table R602.3(1). Ceiling joists shall be continuous or securely joined in accordance with Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to the rafters.

Where ceiling joists are not connected to the rafters at the top wall plate, joists connected higher in the attic shall be installed as rafter ties, or rafter shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be a minimum of 2-inch by 4-inch (51 mm by 102 mm) (nominal), installed in accordance with the connection requirements in Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceiling joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or girder designed in accordance with accepted engineering practice.

Rafter ties shall be spaced not more than 4 feet (1219 mm) on center.

Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space in accordance with Table R602.3(1).

A 1-inch by 6-inch or 2-inch by 4-inch (25 mm by 153 mm or 51 mm by 102 mm) collar tie shall be nailed in the upper third of the roof to every third pair of rafters not to exceed 4-feet (1219 mm) on centers. Collar ties shall be connected to the rafters as specified in Table R602.3(1) for rafter ties.

Mack Nixon made a motion to approve this petition, seconded by Hawley Truax. The council voted unanimously to accept the motion and the petition is approved.

The council agreed to make the effective date for this change January 1, 2012.

Item D – 5 Request by Alan Perdue, NC Building Code Council, to amend the 2009 NC Fire Code, Sections 3301.2.4, 3302, 3308.2, and 3308.3. The proposed amendment is as follows:

Section 3301.2.4 Financial responsibility. Before a permit is issued, as required by Section 3301.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of ~~\$100,000~~ 500,000 or a public liability insurance policy for the same amount.

Section 3302 DEFINITIONS

DISPLAY OPERATOR. An individual who exhibits, uses, handles, manufactures, or discharges pyrotechnics at a concert or public exhibition in this State and possesses a Display Operator's Permit issued by the Office of State Fire Marshal.

DISPLAY OPERATOR'S PERMIT. A permit issued by the Office of State Fire Marshal to an individual in accordance with North Carolina General Statutes, Chapter 58, Article 82A.

3308.2 Permit application. *Add the following to the end of the section.* Prior to issuing any fireworks permits regulated by this code, the fire code official shall verify that permission has been granted to conduct a fireworks display by the board of county commissioners in accordance with NC G.S. 14-410.

3308.3 Approved fireworks displays. Approved displays shall include only the approved Division 1.1G, 1.3G, 1.4G and 1.4S fireworks. Approved Division 1.1G, 1.3G and 1.4G displays shall be handled by a display operator possessing a Display Operator's Permit issued by the Office of State Fire Marshal. Prior to granting approval to any fireworks display, the fire code official shall verify that the display operator and the display operator's assistants are properly permitted in accordance with the NC Fireworks Display Operator's rules regulated by the Office of State Fire Marshal.

Alan Perdue made a motion to approve this petition, seconded by Lon McSwain. The council voted unanimously to accept the motion and the petition is approved.

The council agreed to make the effective date for this change as soon as possible. The projected date of enforcement would be at the completion of the OAH review, September 1st, 2010.

Item D – 6 Request by Kim Reitterer and Al Bass, NC Building Code Council, to add Appendix H, Rainwater Harvesting, to the 2009 NC Plumbing Code. The proposed amendment is as follows:

The text has been posted on the NCDOI website at the following link.

September 15, 2009 (Item B-7, Rainwater Harvesting)

http://www.ncdoi.com/OSFM/Engineering/BCC/engineering_bcc_minutes.asp

Al Bass made a motion to table this item so that the plumbing committee can correlate this with Item C-5. This motion was seconded by Kim Reitterer. The council voted unanimously to accept the motion and the petition is tabled for further consideration by the plumbing committee.

Part E – Reports

Chairman’s Report

- The Chairman expressed concern about the authority of jurisdiction to adopt appendices without the approval of the council, but did not want to create a task force to address the issue. Tom Turner made a motion to eliminate the task force, but to have the Administrative Committee address the appendix and the council’s approach on GS 143-138 addressing local fire code ordinances. This motion was seconded by David Smith. The council approved the motion unanimously.
- The Chairman expressed concern about the adoption of the Green Code. David Smith made a motion to convene the Administrative Committee to review the ICC Green Code before the BCC moves forward on adoption. Mack Nixon seconded the motion. The council approved the motion unanimously.
- The Chairman expressed concern about public comments regarding the melting of vinyl siding from the reflection of low-e windows that have a convex shape. The Chairman asked that David Smith take this issue to the Residential Committee to determine if there is a code solution.

- The Chairman expressed concern about how manufactured homes were exempt from the requirements of the Energy Conservation Code and asked the Council for authorization to write such a letter to HUD on behalf of the BCC. Mack Nixon made the motion and Kim Reitterer seconded it. The council approved the motion unanimously.

Ad Hoc Committee Reports

- Al Bass is working with Henry Webster on scheduling the Rainwater Harvesting Committee Meeting.
- Cindy Browning is working with Ron Chilton on scheduling the Electrical Ad Hoc Committee Meetings.

Standing Committee Reports

- John Hitch reported that both the Fire and General Construction Committees met concerning their positions on the D-Items of the meeting.

Staff Reports

- Chris Noles discussed the set-up and the times of future meetings.

Public Comments

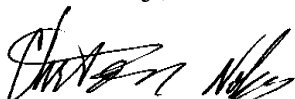
There were no additional comments from the Public.

Part F – Appeals

David Faustin – Black Forest – NCDOI

- Continued to September 13, 2010

Sincerely,



Christian Noles, P.E.
Secretary, NC Building Code Council