

**Minutes of the North Carolina Building Council
June 14, 2005
Raleigh, North Carolina**

All members of the North Carolina Building Code Council were present with the exception of Brad Lail.

The following are summary minutes. The official minutes of this meeting are recorded on tape. Anyone desiring verbatim tapes or excerpts from these tapes should contact the Engineering Division of the North Carolina Department of Insurance for information and reproduction costs. The next scheduled NC Building Code Council meeting will be held on September 12 and 13, 2005 in Statesville, NC.

Part A - Administrative Items

Item A-1 Executive Order: Inquire upon conflicts of interest or appearance of conflicts of interest that exist within the Council.

Al Bass stated that he had a potential conflict of interest regarding Item B-5. Mr. Bass agreed to remove himself from the panel when the Item was brought before the Council.

Item A-2 Approval of minutes of the March 8, 2005 NC Building Code Council Meeting.

Clarification was requested regarding Item C-2.

Item A-3 Letter of appointment to the NC Building Code Council for David Smith.

This item required no vote from the Council.

Item A-4 Letter of reappointment to the NC Building Code Council for Jack Neel.

This item required no vote from the Council.

Item A-5 Letter of resolution for Marshall Knight.

This item required no vote from the Council. Barry Gupton, NCDOT staff, read the letter of resolution to the Council and audience.

Item A-6 Letter from Town of Cary requesting permission to review plans and specifications of buildings listed in table 502 of the NC Administration and Enforcement Requirements Code, per section 502.2.3 for a period of five years.

The town of Cary will be notified of approval by letter.

Item A-7 Request by Town of Fletcher to approve the Fire Prevention Ordinance.

Mack Nixon made a motion to approve the request. Alan Perdue seconded the motion. The motion carried.

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 hearing will take place September 12, 2005.

Item B-1 **Request by the Town of Pine Knoll Shores to reinstate the wind-borne debris provisions (1609.1.4 Protection of Openings) of the NC Building Code.**

A motion was made to grant and send this petition to the appropriate ad hoc committee. Al Bass seconded the motion. The motion carried.

Item B-2 **Request by Jordan Barab to modify Section 1304.1 Standards of the NC Fire Prevention Code.**

Alan Perdue made a motion to grant and send this petition to the appropriate committee. Barry Maness seconded the motion. The motion carried.

Item B-3 **Request by Zeno A. Martin, PE of the Engineered Wood Association to modify Section R602.10.5 Continuous structural panel sheathing of the NC Residential Code.**

A motion was made to grant and send this petition to the Residential Code Committee. The motion was seconded. The motion carried.

Item B-4 **Request by Robbie M. Pate of the Rocky Mount Fire Department to modify the NC Fire Prevention Code as follows:**

3404.2.1 Change of tank contents. Tanks subject to change in contents shall be in accordance with Section 3404.2.7. Prior to a change in contents, the code official is authorized to require testing of a tank.

Tanks that have previously contained Class I liquids shall not be loaded with Class II or Class III liquids until such tanks and all piping, pumps, hoses and meters connected thereto have been completely drained and flushed.

It shall be unlawful to dispense a flammable liquid fuel into any storage tank specified for combustible liquid fuels. The introduction of such fuel into a storage tank shall be reported to the Fire Official immediately upon discovery by the fuel Delivery Company and or merchant responsible for the storage tank.

Upon notification from the fuel Delivery Company or discovery, the merchant shall immediately shut off power to the pump to insure that no dispensing of mixed fuel occurs. Under no circumstances may any fuel be dispensed from the storage tank until all provisions of this section have been addressed and written approval is obtained from the fire official.

Alan Perdue made a motion to grant and send this petition to the Fire Code Ad Hoc Committee. Terry Greene seconded the motion. The motion carried.

Item B-5 **Request by Safran Law Offices to modify the Section 3401 of the Building Code as follows:**

3401.2 Maintenance. Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices or safeguards which are required by this code shall be maintained in conformance with the code edition and interpretations under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. To determine compliance with this subsection, the building official shall have the authority to require a building or structure to be

reinspected. The requirements of this chapter shall not provide the basis for removal or abrogation of fire protection and safety systems and devices in existing structures.

Al Bass excused himself from the panel due to a potential conflict of interest. Perry Safran addressed the Council regarding this item and uniformity and conformity in the code without compromising safety standards. Mr. Safran stated that his request related to the memo sent out by Wanda Edwards, NCDOT staff. Barry Maness made a motion to grant and send the petition to the Building Code and Fire Code committees. Terry Greene seconded the motion. The motion carried.

Part C – Notice of Rulemaking Proceedings and Public Hearing

The attached Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing was held June 13, 2005 and the Final Adoption meeting will take place on or after September 13, 2005. No further action is required by the Council at this time.

Item C-1 Request by Cyrus Dastur, Advanced Energy, to modify the Residential Code, Sections R318 and R409 related to foam plastic flamespread.

The following revised language was given to the Council for consideration during the work session on Monday, March 7, 2005:

R318.2.3 Attics and crawl spaces. Within attics and crawl spaces where entry is made only for service of utilities, foam plastic shall be protected against by 1 ½ inch-thick (38mm) mineral fiber insulation, ¼-inch thick (6.4mm) wood structural panels, 3/8-inch (9.5mm) particleboard, ¼-inch (6.4mm) hardboard, 3/8-inch (9.5mm) gypsum board, or corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406mm). ~~Within crawl spaces, foam plastic use is governed by R409.8.2.~~

R409.8.2 Foam plastic fire safety. Foam plastic insulation may be installed inside crawl spaces without a thermal ~~cover~~ barrier or ignition barrier when the insulation product has been tested in accordance with ASTM E 84 ~~have a flame spread rating of not more than 25 and a smoke developed rating of not more than 450~~ section R318.3. foam plastic tested in accordance with section R318.3 shall be installed according to the limitations stated in the ICC Evaluation Service Report (ICC-ES) for the product. Foam plastics that have not been tested to meet these ratings shall be protected against ignition ~~by covering them with a thermal barrier. Acceptable thermal barriers include but are not limited to ½-inch cement board, metal foil sheets, metal foil tape, steel or aluminum metal sheets or other approved materials installed in such a manner that the foam is not exposed~~ per section R318.2.3.

Exception: Foam plastic insulation located in closed crawl spaces used as conditioned spaces as defined in section R409.5.5 Conditioned Space or section R409.6 Plenums shall be protected against by an approved thermal barrier.

Dave Lovich and Randy Nicklas addressed the Council regarding this item. They made a suggestion to change the name of the evaluation service to the current ICC evaluation service.

Item C-2 Leslie Young, NC State University Center for Universal Design, introduced a petition for rulemaking regarding the NC Rehab Pilot Code. Ms. Young requested the following statement be added in Section 1.1 of the NC Rehab Code:

All references to accessibility in the NC Rehab Code shall mean the 1999 NC Accessibility Code with 2002 and 2004 Amendments.

Jim Bartl, Milton Boykin, John Dalrymple, and Leslie Young spoke to the Council regarding this item. Revised language will be reviewed by the Building Code committee before the next Building Code Council meeting.

Item C-3 Request by the staff of the NC Department of Insurance to adopt the following codes with 2006 NC Amendments:

- A. 2006 NC Administrative Rules and Policies**
- B. 2003 International Building Code**
Chapters 1-15 (with 2006 NC Amendments)
Chapters 16-end (with 2002 NC Amendments)
- C. 2003 International Energy Code (with 2002 NC Amendments)**
- D. 2003 International Fire Prevention Code (with 2004 IFC Supplement)**
- E. 2003 International Fuel Gas Code (with 2006 NC Amendments)**
- F. 2003 International Mechanical Code (with 2002 NC Amendments)**
- G. 2003 International Plumbing Code (with 2002 NC Amendments)**

The initial Public Hearing was held on March 7, 2005. The Second Public Hearing was held on June 13, 2005. A third Public Hearing is scheduled for August 8, 2005 with Final Adoption anticipated on September 13, 2005.

The 2006 NC Administrative Rules and Policies is a reorganization and rewrite of the 2002 NC Administration and Enforcement Requirements Code. The 2006 NC Amendment documents for the 2003 IBC, Chapters 1-15 and the 2003 IFGC are available online at the following site: www.ncbuildingcodes.com (click on NC State Building Codes). The remainder of the codes will be available online on or before July 15, 2005.

Barry Gupton addressed the Council regarding this item. Ron Chilton spoke to the Council regarding the 2006 Administrative Code concerning the use of temporary power.

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 Hearing was held March 7, 2005 and the Final Adoption meeting was held on June 14, 2005. 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 the University of North Carolina system to modify sections 510.1, 510.2, 510.4, and 510.7 of the NC Mechanical Code to reflect the language in the 2004 supplement to the International Codes.

510.1 General. This section shall govern the design and construction of duct systems for hazardous exhaust and shall determine where such systems are required. Hazardous exhaust systems are systems designed to capture and control hazardous emissions generated from product handling or processes, and convey those emissions to the outdoors. Hazardous emissions include flammable vapors, gases, fumes, mists or dusts, and volatile or airborne materials posing a health hazard, such as toxic or corrosive materials. For the purposes of this section, the health hazard rating of materials shall be as specified in NFPA 704.

Laboratories: For the purposes of the provisions of Section 510, a laboratory shall be defined as a facility where the chemistry is related to testing, analysis, teaching, research,

or developmental activities. Chemicals are used or synthesized on a non-production basis, rather than in a manufacturing process.

510.2 Where required. A hazardous exhaust system shall be required wherever operations involving the handling or processing of hazardous materials, in the absence of such exhaust systems and under normal operating conditions, have the potential to create one of the following conditions:

1. A flammable vapor, gas, fume, mist or dust is present in concentrations exceeding 25 percent of the lower flammability limit of the substance for the expected room temperature.
2. A vapor, gas, fume, mist or dust with a health-hazard rating of 4 is present in any concentration.
3. A vapor, gas, fume, mist or dust with a health-hazard rating of 1,2, or 3 is present in concentrations exceeding 1 percent of the median lethal concentration of the substance for acute inhalation toxicity.

Exception: Laboratories, as defined in section 510.1, unless the concentrations listed in Item 1 are exceeded or a vapor, gas, fume, mist or dust with a health-hazard rating of 1,2, 3, or 4 is present in concentrations exceeding 1 percent of the median lethal concentration of the substance for acute inhalation toxicity

510.4 Independent system. Hazardous exhaust systems shall be independent of other types of exhaust systems. Incompatible materials, as defined in the *International Fire Code*, shall not be exhausted through the same hazardous exhaust system. Hazardous exhaust systems shall not share common shafts with other duct systems, except where such systems are hazardous exhaust systems originating in the same fire area.

Exception: The provision of this section shall not apply to laboratory exhaust systems where all of the following conditions apply:

1. All of the hazardous exhaust ductwork and other laboratory exhaust within both the occupied space and the shafts is under negative pressure while in operation
2. The hazardous exhaust ductwork manifolded together within the occupied space must originate within the same fire area.
3. Each control branch has a flow regulating device
4. Perchloric acid hoods and connected exhaust are excluded from manifolding
5. Radioisotope hoods are equipped with filtration and/or carbon beds where required by the registered design professional.
6. Biological safety cabinets are filtered.
7. Provision is made for continuous maintenance of negative static pressure in the ductwork

Contaminated air shall not be recirculated to occupied areas unless the contaminants have been removed. Air contaminated with explosive or flammable vapors, fumes, or dusts; flammable or toxic gases; or radioactive material shall not be recirculated.

510.7 Suppression required. Ducts shall be protected with an approved automatic fire suppression system installed in accordance with the *International Building Code*.

Exception: An approved automatic fire suppression system shall not be required in ducts conveying materials, fumes, mists, and vapors that are nonflammable and noncombustible.

Exception: For laboratories, as defined in Section 510.1, automatic fire protection systems shall not be required in laboratory hoods or exhaust systems.

Al Bass made a motion to adopt this item. Barry Maness seconded the motion. The motion carried.

Item D-2 Request by Tim Bradley, Deputy State Fire Marshal, to modify the 2002 NC Fire Prevention Code as follows:

105.6.7 Combustible dust producing operations. ~~Optional permit~~ Mandatory permit. An operational permit ~~may be~~ is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts as defined in Chapter 2.

Al Bass suggested amending the language to exclude existing grist mills. Alan Perdue explained that the grist mills would not require a mandatory permit as long as the technical requirements of the operation remained unchanged. Mack Nixon made a motion to adopt the item. The motion was seconded. The motion carried.

Item D-3 Request by Patrick Granson to modify the 2002 NC Building Code as follows:

308.5.2 Child care facility. A facility that provides supervision and personal care on less than a 24-hour basis for more than five children 2 ½ years of age or less and when the rooms where such children are cared for are located on the level of exit discharge shall be classified as Group I-4. For children older than 2 ½ years of age shall comply with 1007.6 North Carolina State Building Code.

This code change is proposed for clarification regarding Group I-4 facilities for young children that are required to be on the level of exit discharge. Barry Gupton, NCDOT offered the following amendment to 419.1.1 in lieu of the proposed amendment to 308.5.2.

419.1.1 Location. Rooms where occupants receive care in I-4 and R-3 adult and child care facilities shall be on the level of exit discharge.

A motion was made to adopt the amendment to 419.1.1. Tom Avery seconded the motion. The motion carried.

Item D-4 Request by Icynene, Inc. to adopt section R806.4, Conditioned Attic Assemblies of the 2004 supplement to the International Residential Code.

The Residential Code and Energy Conservation Code Ad Hoc Committees met on February 7, 2005 and recommended approval.

R806.4 Conditioned attic assemblies. Unvented conditioned attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) are permitted under the following conditions:

1. No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
2. An air-permeable insulation is applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable" shall be defined by ASTM E 283.
Exception: In zones 2B and 3B, insulation is not required to be air impermeable.
3. In the warm humid locations as defined in Section N1101.1:

- a. For asphalt roofing shingles: A 1-perm (57.4 mg/s · m² · Pa) or less vapor retarder (determined using Procedure B of ASTM E 96) is placed to the exterior of the structural roof deck; i.e., just above the roof structural sheathing.
 - b. For wood shingles and shakes; a minimum continuous ¼-inch (6 mm) vented air space separated the shingles/shakes and the roofing felt placed over the structural sheathing.
4. In zones 3 through 8 as defined in Section N1101.2, sufficient insulation is installed to maintain the monthly average temperature of the condensing surface above 45° F (7° C). the condensing surface is defined as either the structural roof deck or the interior surface of an air-impermeable insulation applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable" is quantitatively defined by ASTM E 283. for calculation purposes, as interior temperature of 68° F (20° C) is assumed. The exterior temperature is assumed to be the monthly average outside temperature.

Mack Nixon made a motion to adopt the item. The motion was seconded. The motion carried.

Item D-5 **Request by the North Carolina Building Code Council to adopt the "Rehabilitation Code" as cited in the North Carolina Session Law 2001-372. The document is available online at the following site: www.ncrehabcode.com.**

John Hitch made a motion to request NCDOT staff to administer and distribute this code. Dan Murray seconded the motion. The motion carried.

Part E - Reports

Building Code Council Standing Committee Reports

Ad Hoc Committee reports and Meeting Dates

Ad Hoc Committee	Chairman	Status
Building Code (Chapters 1-15)	Butch Simmons	Work is complete.
Building Code (Chapters 16-end)	Tom Avery	Work is complete.
Energy Code	Tom Turner	Work is complete.
Fire Prevention Code	Alan Perdue	Work is complete.
Fuel Gas Code	Terry Greene	Work is complete.
Mechanical Code	Al Bass	Work is complete.
Plumbing Code	Al Bass	Work is complete.
Residential Code	Dan Tingen	Final Meeting date: September 28, 2005

Barry Gupton commented on the status of each committee. Mr. Gupton stated that the Residential Code Ad Hoc Committee has extended its work until September 2005. Mr. Gupton also reported that a special hearing has been scheduled for August 8, 2005 at the Wake County Commons Building in Raleigh for testimonials on all code changes except for the Residential Code. The Council and the audience were also advised to check the website for the changes that have been made to the codes (www.ncbuildingcodes.com).

Butch Simmons (Building Code Chapters 1-15), Al Bass (Mechanical and Plumbing Codes), and Alan Perdue (Fire Prevention Code) commended the hard work that each committee member had put forth.

New Committee Meeting Dates

Date and Time	Committee(s)	Location	Discussion Topic
July 14, 2005 9:00AM-2:00PM	Administrative and Electrical	NCDOI/OSFM classroom	2006 Admin. Code and Temporary Power
July 18, 2005 9:00AM-4:PM	Residential	NCDOI/OSFM Conference Room	R602.10.5 Continuous Structural Panel Sheathing
August 8, 2005 After Public Hearing	Fire and Building	Wake County Commons Building	Bldg. Code 3401.2 Maintenance & Fire Code Standards and Change of tank contents
Sept. 12, 2005 After BCC Meeting	Structural Standing Committee	Statesville Convention and Visitors Bureau Statesville, NC	1609.1.4 Windborne Debris

Staff Reports

Wanda Edwards detailed to the Council the accomplishments of the NCDOI staff. Ms. Edwards reported that the website is being revamped; a page will be designed for each division and navigation of the sites will be made easier. Twenty-five interpretations were posted on the website last month; the postings will decrease soon due to the implementation of the new codes. Staff meetings within in the Engineering Division are being held often to review progress. Ms. Edwards also reminded the Council that they would be advised of all interpretations and that they would have two days to make any comments regarding the interpretations. John Hitch questioned Ms. Edwards regarding the revision to the interpretations already posted due to the renumbering of sections during the amending process for the new codes. Ms. Edwards assured him that the interpretations would be reviewed for any changes needed. Ms. Edwards also discussed the issues dealing with adding more staff members in the interpretation department and the current staff being burdened with a substantial volume of emails, phone calls and voicemails. Dan Tingen suggested asking the jurisdictions to perform their own plan reviews. Changing the statute on city and county plan review would greatly help take the workload of the NCDOI staff. It will be two years before a change can be introduced to the legislature. John Hitch suggested that the staff adhere strictly to the 30 day turn-around period for reviews. Jack Neel suggested having information prepared by the BCC to develop a strategy to streamline the review process and to have a group lobby for this. Ms. Edwards also mentioned working in tandem with the community colleges to educate the inspectors and code enforcement officials.

Other Reports

Don Brown addressed the Council regarding the use of USGS maps.

Part F - Appeals

Item F-1 There were no appeals scheduled for this meeting.

Sincerely,

Barry Gupton, PE
Secretary, NC Building Code Council