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**INSURANCE**  
 OFFICE OF STATE FIRE MARSHAL

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## Introduction

Welcome to the January, 2018 OSFM Engineering Newsletter. Of particular note in this newsletter, observe the Update on 2018 NC Codes, the 2017 NC Electric Code, and the sunset date of the Rehabilitation Code.

## Current Topics

### Update on 2018 NC Building Code

Everything is on-track to meet the statute-required timeframes for the 2018 NC Building code. The 2018 NC Building Code as presented on the NC DOI website, has been adopted by the Building Code Council at the June 2017 quarterly meeting as previously reported, and at the August and September 2017 Rules Review meetings, the code volumes have also passed rules review. The excerpts from the minutes are following this paragraph. The link to view the information directly is:

<http://www.ncoah.com/rules/rrc/meetings/index.html>.

### LIST OF APPROVED PERMANENT RULES August 17, 2017 Meeting

#### BUILDING CODE COUNCIL

2018 Building Code 2018 Building Code  
 2018 Fire Prevention Code 2018 Fire Prevention Code  
 2018 Fuel Gas Code 2018 Fuel Gas Code  
 2018 Plumbing Code 2018 Plumbing Code

### September 21, 2017 Meeting (excerpt for Building Code Council Section of Approved Permanent Rules)

#### BUILDING CODE COUNCIL

2018 Energy Conservation Code 2018 Energy Conservation Code  
 2018 Existing Building Code 2018 Existing Building Code  
 2018 Mechanical Code 2018 Mechanical Code  
 2018 Residential Code 2018 Residential Code

## The 2018 NC Code (Except Electrical) Implementation Diagram

The 2018 NC Code has been adopted, but it is not mandatorily required (effective) until Jan 1, 2019. There is a minimum six-month overlap time required between adoption and mandatory effective date. The most likely overlap period can start as soon as the adoption date. Then, on January 1, 2019 the 2018 NC code is effective, and the 2018 NC Code is the requirement. This overlap may be extended, but that cannot be predicted at this time. There should be ample time to have published code books by the July 1 2018 timeframe, and certainly by the Jan 1, 2019 timeframe.

### Frequently Asked Questions

These very good questions are being asked, and here are the best available answers.

#### When will print versions of the 2018 NC Code be available for purchase?

- Although an exact date cannot be promised, all indications are that they will be available by June 2018.

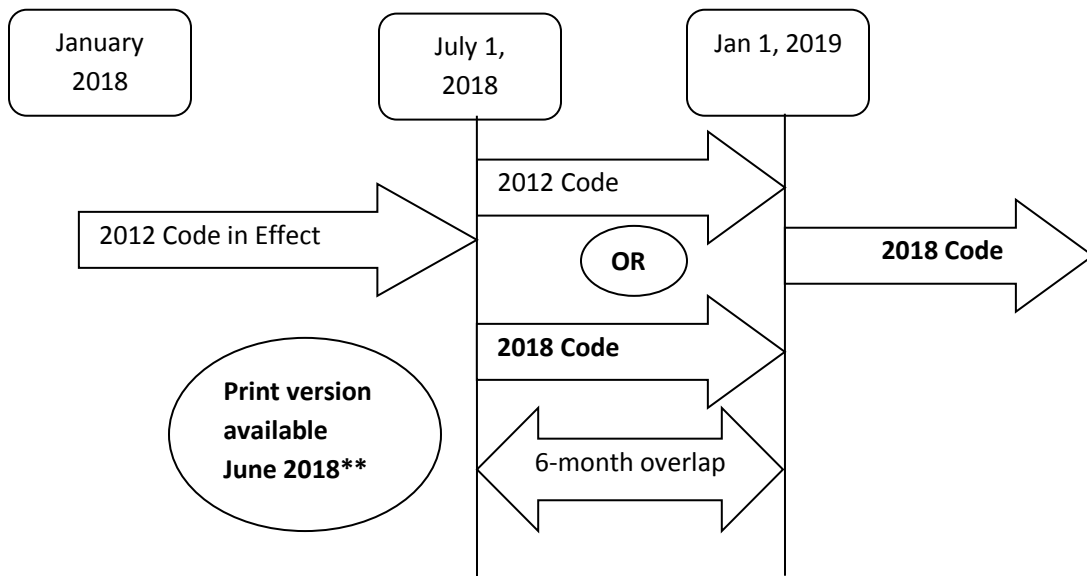
#### Will pre-orders be taken in the event they are not available, thereby letting me get the costs into the 2017-2018 fiscal year?

- In past years, the publisher, ICC has taken pre-orders. It is likely this will occur again, but unfortunately we cannot promise this.

#### How much will they cost?

- A fixed cost per manual is not yet published. It is anticipated that the costs per manual will be similar to the 2012 NC codes

The following represents a time line that may aid in planning when to budget for new code training and materials.



**FIGURE 1: TENTATIVE ADOPTION AND EFFECTIVE DATES\***

- \*Dates of overlap and earliest adoption date (July 1, 2018) are **subject to variation** due to the direction of the Building Code Council.
- \*\*The print availability is a best estimate, unfortunately it cannot be promised without caveats

- Remember, the newly adopted 2018 NC Building Code has passed Rules Review, therefore it is like any other code amendment and can be used as an alternate method prior to the effective date if requested by the user. Reference NC Administrative Code Section 102.5.

### **Update on 2017 NC Electrical Code**

The 2017 NC Electrical code was presented as a “D-Item” at the December 2017 Building Code Council Meeting. It passed. It is in the Rule Review queue for final review. It will be termed the “2017 North Carolina Electrical Code”. In prior newsletters it was followed as the 2018 NC Electrical Code, but the formal name, in the end, will be the 2017 NC Electric Code. Assuming it is adopted, it is on track to become effective April 1, 2018. The NC-specific Amendments to the 2017 NEC can be viewed at the following link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Codes -  
Current and Past&user=State Building Codes#Elec](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Codes_-_Current_and_Past&user=State_Building_Codes#Elec)

Everything appears on-track for the April 1, 2018 effective date of the 2017 NC Electrical Code. Remember, there is no overlap time period with the Electrical Code. The amendments can be printed out and inserted into any NFPA 70 – 2017 (NEC) document. The NC DOI code book sales presently does not have a stock of these, but it is widely available either through NFPA or other on-line sellers, and many electrical supply houses sell them at the counter.

### **Sunset date of Rehabilitation Code**

With the adoption of the 2015 NC Existing Building Code, a sunset date of March 1, 2018 was selected for the Rehabilitation Code. After this date, that book can no longer be used.

The 2012 NC Rehab Code will sunset March 1, 2018. You can also find that date mention here:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=State Building Codes USER&user=State Building Codes](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=State_Building_Codes_USER&user=State_Building_Codes)

**Excerpt from website:**

#### **Rehabilitation Code**

The 2006 NC Rehabilitation Code was effective from January 1, 2006 through December 31, 2009.

The 2009 NC Rehabilitation Code was effective from January 1, 2010 through December 31, 2014.

The 2012 NC Rehabilitation Code became effective January 1, 2015 through February 28, 2018.

(So, March 1 it is no longer in effect)

## Technical Bulletins

This is a new section dedicated to items of interest that pop up that aren't really interpretations of code; they could be better described as notes on installation instructions, or maybe topics of where to find a code section but not really an interpretation of the code section itself, or observations from the field that are occurring that are perceived as code issues but the code really does not cover.

### Field Observations

#### Copper piping penetrated by siding nails

- Be aware of piping such as copper and plastics (water, gas, refrigerant) installed in the wall cavities, especially if they are spray-foamed and holding the piping firmly. Although minimum code would not require shield plates for this piping to be shielded for the entire cavity (NCFGC 404.5) (CSST does have requirements in the installation instructions pertaining to shielding when installed in spray foamed cavities, varies from manufacturer to manufacturer), minimum code does not guarantee a siding nail will not get driven into the piping. It has been reported to happen, but there is not a means of tracking the frequency with any degree of accuracy.

#### Refrigerant piping penetrated above top plate or under roof deck

- Another not-uncommon place where the code does not require shielding is where the refrigerant lines leave the top plate of a wall cavity and transition to an attic. NCMC 305.5 would not require a shield plate above the top plate (it does require it 2" above sole plates and below top plates). However, the point leaving the top plate can be very close to the roof deck, and roofing and siding nails have been driven into these lines. The lack of shield plates is not a minimum code violation, but if penetrated, it is a matter of spirited conversation for the various trades to determine who fixes and pays for the remedy.

## Recurring Articles

### Building Code Council Approved Rule Changes

At the September 2017 Building Code Council meeting, there were 16 D-Items (Electrical Code has one D Item with 42 subsections) and 16 of these were adopted. Please refer to the following link to review the list of D-Items from the December 2017 Building Code Council Meeting:

BCC Meeting Agenda-December 2017 (Minutes will be published in March online)

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/BCC\\_Agendas/2017%2012~December%2017,%202017\\_.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Agendas/2017%2012~December%2017,%202017_.pdf)

Assuming the BCC-approved D-Items are approved by the Rule Review Commission, the adopted rules will be placed on the NCDOT Engineering website. The compilation of previously approved rules is located in the document "**2016-2018 Approved Cumulative Amendments (Effective 2016-2018)**" document. Previously approved amendments that had an effective date of January 1, 2017 or earlier can be found in the document "**Accumulative Supplement to the 2012 NC Building Code**". This document contains all amendments from 2012, 2013, 2014, and 2016, and 2017 and are posted in this single document. With the December 2018 amendments, another document will be posted that has an effective date of 2019. It is currently not posted as of the posting of this newsletter.

Accumulative Supplement to the 2012 NC Building Code links:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/2012-2017ApprovedCumulativeTest1Format.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2012-2017ApprovedCumulativeTest1Format.pdf)

The full review of the December-approved code amendments is left to the reader, but **the titles of each item** are bulleted below. Please note the minutes may not be available on the DOI website until the next quarterly meeting in March 2018.

BCC Approved Amendments-December 2017

- **Item D – 1 Request by the NC Building Code Council, Electrical Ad Hoc Committee, to adopt the 2017 National Electric Code with North Carolina Amendments to be known as the 2017 North Carolina Electrical Code. The base documents for the 2017 NC Ad-Hoc Committee amendments are the 2014 NC Electrical Codes. The 2017 NC Ad-Hoc Committee amendments are posted at the link below and are replacements to the Sections printed in the base documents.**  
[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2017%20Amendments%20to%20be%20adopted%20with%20the%20NEC%20Version%201.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2017%20Amendments%20to%20be%20adopted%20with%20the%20NEC%20Version%201.pdf)

The 2017 National Electrical Code is available at the link below for purchase or for public access.

<http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70>

- **Item D – 2 Request by the NC Building Code Council and Appendix B Ad-Hoc committee, to amend the 2012 & 2018 Administrative Code and Policies, section 204.3.4 as follows:**
- **Item D – 3 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Building Code, Section 1301.1.1 as follows:**
- **Item D – 4 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Energy Code, Section 101.2 as follows:**
- **Item D – 5 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2015 NC Existing Building Code, Section 101.12 as follows:**
- **Item D – 6 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Building Code, Section 1301.1.1 as follows:**
- **Item D – 7 Request by the NC Building Code Council, representing the NC General Assembly, to revise the 2018 NC Existing Building Code, Section 101.12 as follows:**
- **Item D – 8 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Energy Code, Section C101.2 as follow**
- **Item D – 9 Request by Robert Privott and Buddy Hughes of the NC Home Builders Association, LOGIX, Inc., to amend the 2012 Residential Code, Section R404.1.2.3.6.1 as follows:**
- **Item D – 10 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2018 Residential Code, Chapter 2 Definitions as follows:**
- **Item D – 11 Request by Robert Privott and Buddy Hughes, representing the NC Home Builders Association, LOGIX, Inc., to amend the 2018 Residential Code, Section R318.4.5.1 as follows:**
- **Item D – 12 Request by Robert Privott and Buddy Hughes, representing the NC Home Builders Association, LOGIX, Inc., to amend the 2018 Residential Code, Section R404.1.3.3.6.1 as follows:**
- **Item D – 13 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2018 Residential Code, Table N1102.1.2 and the 2018 Energy Conservation Code, Table R402.1.2 as follows:**
- **Item D – 14 Request by Leon Skinner, representing the City of Raleigh, to amend the 2018 NC Plumbing Code, Chapter 2 as follows:**
- **Item D – 15 Request by Leon Skinner, representing the City of Raleigh, to amend the 2018 NC Plumbing Code, Section 605.3 as follows:**

- **Item D – 16 Request by Jesse Wade White, Jr., PE, representing the BCC Electrical Standing Committee, to amend the 2014 NC Electrical Code, Section 680.21(C) as follows:**

## **Qualification Board Update**

### **Minutes**

The minutes of the Qualifications Board Meeting Minutes are available at the following links:

Meeting Minutes and Agendas

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=COQB -  
Minutes&user=Code Officials Qualification Board&sub=COQB Meeting](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=COQB_-_Minutes&user=Code_Officials_Qualification_Board&sub=COQB_Meeting)

Individuals wishing to provide feedback are encouraged to contact Kathy Williams at [Kathy.Williams@ncdoi.gov](mailto:Kathy.Williams@ncdoi.gov)

## **Department Notes**

### **Engineering Department**

#### **Personnel Notes**

Jessica Yelverton has left NC DOI for employment with another company. Jessica has left OSFM to work in the private sector effective January 3, 2018.

Jessica has served as our Extension Education & Training Specialist for the NC Code Officials Qualification Board and our 4,000 Code Enforcement Officials across the State.

While this is a great opportunity for Jessica, it will be a loss to our educational programs. Jessica's unfailing energy and attitude toward learning that she brought to the job will be missed.

Throughout her tenure in this position she has provided superior service to BOTH our NC Community College system partners teaching Standard Courses as well as inspector Associations and AHJs Sponsors of Continuing Education courses. For those of you unfamiliar with her work, her duties included review and verification of roster and student evaluation uploads, CE credits, routing and approvals of CE courses for review by our Chief Code Consultants, AND most recently update of the Standard Course curriculum to the new Codes!

THANK YOU and WISHING YOU GREAT SUCCESS - JESSICA - as you embark on your next challenge!

### **New Code Interpretations, Guidance Papers, and Appeals Posted**

Since the prior Newsletter, there has been the following web interpretations and guidance papers posted to aid the building owners, inspection, design professional, and construction personnel:

Code, Guidance, Appeals link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code Interpretations&user=State Building  
Codes](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Interpretations&user=State_Building_Codes)

Guidance Papers

GS 153A-352 - Inspection Department Informal Internal Review Process.doc

GS 153A-363 GS 160A-423 - Certificates of Occupancy.doc

These papers are to assist local jurisdictions on how NCDOI views a given law. These are not legal advice, but opinions. They are located under the table heading “SPECIFIC ACTIONS” in the Interpretations matrix.

## Interpretations

### Electrical

210.52(A) Wall Space verses Wall Countertop Spaces.doc

### Formal Interpretations and Appeals

171128 Number of Residential Inspections.pdf

Formal interpretations and Appeals are available in the interpretations link shown above. They are located under the table heading “SPECIFIC ACTIONS”. There is one formal interpretation posted since the prior newsletter.

## Q and A from the Deputy Commissioner

### UNDERSTANDING CODE

Q: Can an inspector require emergency lights in a restroom under the NC Building Code?

A: No. An inspector cannot require anything more than Code.

R: The result of such a requirement is the building, design, council and/or legislature creating new rules or law.

## Cumulative Supplements

Cumulative code changes and their adoption dates can be found on the DOI website at:

### Cumulative code changes link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/2012-2017ApprovedCumulativeTest1Format.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2012-2017ApprovedCumulativeTest1Format.pdf)

### 2016-2018 Approved Cumulative Amendments (Effective 1/1/2018)

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Documents/2012\\_NCBuildingCode\\_amendments/2016-2018ApprovedCumulative.pdf](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2016-2018ApprovedCumulative.pdf)

As mentioned in the Current Topics section of this Newsletter, the limited-time free offerings have all the approved amendments (that were available prior to the July 1, 2017 start date) printed into the code. It may be very helpful to download this document for the purpose of having all the amendments in the code, and for this reason alone. You may have to scroll down on the screen that is accessed at the above link to see another link to the “**Accumulative Supplement to the 2012 NC Building Code.**” This document now contains all code amendments that are adopted since 2012. Use the Table of Contents to scan for changes by Code.

Remember, refer to NC Administrative Code section **102.4 Effective date of rules**, and **102.5 Interim use of approved rules** for clarification of effective dates and the process for using approved rules prior to the effective date.



## Qualifications Assurance Section – COQB, HILB & PYRO

### NC Building Code Training

The most up-to-date training schedule for all building codes are available at the following link:

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes/Default.aspx?field1=Code\\_Education -  
\\_Student\\_Main&user=Code\\_Education\\_Resources](http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Education_-_Student_Main&user=Code_Education_Resources)

Once the web page is accessed, click the “**FIND A CLASS**” button to refine your search. As always, please consider the use of the Standard Classes if you are a design professional, contractor, or code official, as they are an underutilized offering and are the primary source of code training in NC.

The NC Building Inspectors Association, NC Plumbing Inspectors Association, NC Mechanical Inspectors Association and NC Fire Marshal’s Association have published their winter and spring 2018 training. There is still one class left in the training year for the Ellis Cannady chapter (electrical inspectors). See excerpt below the Fire Marshal weblink for information on the annual Fire Prevention School. Please review their websites, in addition to the NC DOI website for available training.

<http://www.ncbia.org/>

January 22-25, 2018  
February 19–22, 2018  
March 26-29, 2018

<http://ncpia.us/>

February 8, 2018 in Rocky Mount  
March 8, 2018 in Monroe  
April 12, 2018 in Morganton  
May 9, 2018 in High Point  
September 20, 2018 in Calabash  
October 24, 2018 in Burlington

<http://ncmia.com/>

February 7th – Rocky Mount  
February 21st – Smithfield  
March 15th – Morganton  
April 11th – Wilson  
April 9th – Morganton  
TBA – Jacksonville  
May 16th - Monroe

<http://www.ncfma.com/>

NC Fire Prevention School  
March 5 – 9, 2018  
National Guard Training Center  
Fort Fisher at Kure Beach, NC  
Registration Deadline: 16 Feb 2018  
Limited to 185 students

<http://www.nciaei.org/>

January 25th, 2018 – Greensboro NC

## Reminders and other Resources

### Inspector Marketplace – Find a Certified Inspector

There have been two links added to the NC DOI OSFM website that are intended to aid both jurisdictions looking for certified inspectors, and for part-time and/or retired inspectors to be able to communicate their availability for work. The links are as follows:

Webpage links are located

[http://www.ncdoi.com/OSFM/Engineering\\_and\\_Codes.aspx](http://www.ncdoi.com/OSFM/Engineering_and_Codes.aspx)

Link to sign-up

<https://www.surveymonkey.com/r/CEOs4hire>

Link to Inspector Marketplace

<https://www.surveymonkey.com/results/SM-8DNHVPY5/auth/>

### Reminder: Limited time only, Free 2012 NC Code Downloads Available

As noted in prior Engineering Newsletters, the Building Code Council and the NC Department of Insurance have negotiated for and achieved funding from the NC General Assembly for the offering of a free (free to the user) downloads of the 2012, 2014 and 2015 NC Building Codes. These codes are the fully downloadable and printable for a limited time courtesy of the Department of Insurance. The link to the codes is:

<https://codes.iccsafe.org/public/collections/nc>

Please take advantage of this limited time offer.

**End of Newsletter**