

MIKE CAUSEY, Commissioner of Insurance

325 N. Salisbury St, Raleigh, NC 27603 (Street Address)

1202 Mail Service Center, Raleigh, NC 27699-1202 (Mailing Address)

(919) 647-0000

www.ncdoi.com/OSFM

SUBSCRIBE

May 2019

Contents

Table of Contents

ntroduction	2
Current Topics	2
Solar Photovoltaic Schematics Available	2
New Guidance Paper Posted	3
Shower Pan Inspection Interpretation	3
Web Page Update in Progress	3
Recurring Articles	3
Building Code Council Approved Rule Changes	3
Qualification Board Update	5
Minutes	5
Department Notes	5
Engineering Department	5
Personnel Notes	5

New Code Interpretations, Guidance Papers, and Appeals Posted	5
Cumulative Supplements	6
Education Section	6
OSFM Engineering Division Programs – Inspector Education FY 2018-2019	6
NC Building Code Training	8
Reminders and other Resources	9
2018 NC Code Online version	9
Ordering the 2018 NC Code – Discounted Code Books	9
Accessibility Newsletters	9
2018 NC Codes Errata	10
Clarification on Zone 3 Energy Code Requirements	11
Energy Code – ResCheck and ComCheck Clarifications	11

Introduction

Welcome to the May 2019 OSFM Engineering Newsletter. Of note, refer to the Electrical Divisions article concerning Solar Photovoltaics and the new guidance paper addressing common contractor insurance requirements, and Shower Pan Inspection Interpretation in the Current Topics section. Also refer to the Personnel Section for notes on long-time employees Laurel Wright and Pat Walker who have retired.

Current Topics

Solar Photovoltaic Schematics Available

In order to assist with solar photovoltaic system issues across the state, Joe Starling and Danny Thomas have developed some diagrams that illustrate several common acceptable methods and the code sections pertaining to them. There has been two primary points of conflict in question: 1) the proper procedure for inspection on residential roofs including the engineered structural design, and 2) the proper wiring methods recognized by the State.

The diagrams addressing these questions were placed where the "Important Notifications" are on the electrical landing page here ---> http://www.ncdoi.com/OSFM/State_Electrical_Division//Default.aspx

Inspection procedure link:

http://www.ncdoi.com/OSFM/State_Electrical_Division/Documents/ImportantNotifications/Residential%20Rooftop%20Solar%20Photovoltaic%20Inspection%20Procedure%20April%2023,%202019.pdf

Solar Photovoltaic Electrical Schematics link:

http://www.ncdoi.com/OSFM/State Electrical Division/Documents/ImportantNotifications/Temporarily%20Approved%20Solar%20Photovoltaic%20Electrical%20Schematics.pdf

These postings should address many of the reccurring questions.

New Guidance Paper Posted

A new Guidance Paper has been posted, <u>GS 97-2 Contractor Insurance Questions.pdf</u>, to the interpretations webpage. Although it is titled Contractor Insurance Questions, there are ten total sub questions related to the main topic that the reader may find helpful, including questions about permitting. Please check it out.

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/Interpretations4/Guidance%20Papers/GS%2097-2%20Contractor%20Insurance%20Questions.pdf

Shower Pan Inspection Interpretation

A new interpretation/procedural clarification has been posted concerning shower pan inspections. This has been an issue for a while and this interpretation is designed to address the concerns.

https://ncdoi.com/OSFM/Engineering and Codes/Documents/Interpretations5/2018%20Plumbing/P2503.5.1%20Rough%20Plumbing%20and%20shower%20pan%20inspection.pdf

Web Page Update in Progress

The NC Department of Insurance is in the process of updating its website. This includes many divisions that are under the NCDOI umbrella, including Office of State Fire Marshal. If you have any suggestions, please feel free to make them at the following location:

https://ncdoi.com/Contacts/Suggestions.aspx

Make sure the suggestion references the OSFM Engineering division website.

Also, you can contact Mr. Tim Morrison (919-647-0021) or Ms. Natalia Santiago (919-647-0018) who are coordinating the efforts to make the OSFM Engineering webpages better. Please have your suggestions in by the beginning of July.

Recurring Articles

Building Code Council Approved Rule Changes

The March Building Code Council meeting was held as scheduled. At this March 12th, 2019 Building Code Council meeting, there were 19 D-Items and of these 8 were adopted, 1 was resubmitted as C-item, and 10 were denied. Please refer to the following link to review the list of D-Items from the March 2019 Building Code Council Meeting:

BCC Meeting Minutes-March 2019

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/BCC Minutes/2019%2004%2016~March%2012,%202019 __pdf

Assuming the March BCC-approved D-Items are approved by the Rule Review Commission, the adopted rules will be placed on the NCDOI Engineering website. The compilation of previously approved rules is in the document "2017-2019 Approved Cumulative Amendments (Effective 1/1/2019)" document.

2017-2019 Approved Cumulative Amendments (Effective 1/1/2019)

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/2018 NCBuildingCode amendments/2018 NCBuildingCode amendments.pdf

Accumulative Supplement to the 2012 NC Building Code links (still useful for research-but superseded by 2018 Code): http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/2012 NCBuildingCode amendments/2012-2017ApprovedCumulativeTest1Format.pdf

The full review of the March-approved code amendments is left to the reader, but the titles of each item are bulleted below.

- Item D 1 Request by Eurilynn Caraballo representing Mecklenburg County Code Enforcement to amend the 2018 NC Building Code, Section 1009.7.2: (Remainder not shown for brevity) proposal approved.
- Item D 2 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.6.2 Compliance Report: (Remainder not shown for brevity) – proposal denied.
- Item D 3 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.6.2 (R406.6.2) Compliance Report: (Remainder not shown for brevity) –proposal denied.
- Item D 4 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.6.1 (R406.6.1) Compliance Software Tools: (Remainder not shown for brevity) – proposal denied due to lack of a motion.
- Item D 5 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.2 (R406.2) Mandatory Requirements: (Remainder not shown for brevity) proposal denied due to lack of a motion.
- Item D 6 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Fuel Gas Code, Sections 311.4.1.1, 311.4.1.2, 311.4.1.3, 311.4.4.1: (Remainder not shown for brevity) proposal denied due to lack of a motion.
- Item D 7 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section N1106.7.1 (R406.7.1) Minimum Capabilities: (Remainder not shown for brevity) proposal denied due to lack of a motion.
- Item D 8 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.6.1 Compliance Software Tools: (Remainder not shown for brevity) proposal denied due to lack of a motion.
- Item D 9 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section R406.7.1 Minimum Capabilities: (Remainder not shown for brevity) – proposal denied due to lack of a motion.
- Item D 10 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Residential Code, Section Part IX Referenced Standards / ICC: (Remainder not shown for brevity)
 proposal denied due to lack of a motion.
- Item D 11 Request by Ryan Miller representing the NC Building Performance Association to amend the 2018 NC Energy Conservation Code, Section NC Residential Provisions, Chapter 6 Referenced Standards, ICC: (Remainder not shown for brevity) – proposal denied due to lack of a motion.
- Item D 12 Request by Barry Siegal representing BSC Holdings, Inc. to amend the 2018 NC Building Code, Section 903.2.8 and Table 602 and 2018 NC Fire Prevention Code, Section 903.2.8: (Remainder not shown for brevity) – proposal will be re-introduced as a C-item due to substantial wording changes.
- Item D 13 Request by Colin Triming representing the NC Fire Code Revision Committee to amend the 2018 NC Existing Building Code, Sections 403.11, 804.4.3, 1104.2: (Remainder not shown for brevity) – proposal approved
- Item D 14 Request by Carl Martin representing the NC Department of Insurance to amend the 2018 NC Building Code, Sections 312.1 & H109.2: (Remainder not shown for brevity) proposal approved
- Item D 15 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 NC Energy Conservation Code, Section R101.2: (Remainder not shown for brevity) – proposal approved
- Item D 16 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 NC Residential Code, Section N1101.1: (Remainder not shown for brevity) proposal approved

- Item D 17 Request by the NC Building Code Council representing the NC General Assembly to amend the 2018 Existing Building Code, Section 101.12: (Remainder not shown for brevity) proposal approved
- Item D 18 Request by Daniel Priest representing Priest Architecture, PLLC to amend the 2018 NC State Building Code, Table 2902.1 and the 2018 NC State Plumbing Code, Table 403.1: (Remainder not shown for brevity) – proposal approved
- Item D 19 Request by Daniel Priest representing Priest Architecture, PLLC to amend the 2018 NC State Plumbing Code, Section 410.2: (Remainder not shown for brevity) proposal approved

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

Individuals wishing to provide feedback are encouraged to contact Kathy Williams at Kathy. Williams@ncdoi.gov

Department Notes

Engineering Department

Personnel Notes

Laurel Wright

Laurel Wright, long-time Accessibility Code Consultant, has retired. She served in her roll for 25 years, including a seat on the ANSI A117.1 standards writing committee. We wish her well in her retirement.

Pat Walker

Pat Walker of the Manufactured Building division has retired after 36 years 7 months of service. He has worked under four different Commissioners. Pat helped develop the modular regulations. His experience will be sorely missed, but his position is being filled by Barry Gupton.

New Code Interpretations, Guidance Papers, and Appeals Posted

The office is in the process of rolling over the still-pertinent 2012 interpretations into a new 2018 slot. There are over 200 interpretations that have been updated and rolled forward. Staff is working to complete the task. Please note that sometimes the references change, so it may not be in the exact place you were used to seeing an interpretation that has been posted before.

Code, Guidance, Appeals link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Interpretations&user=State_Building Codes

Interpretations

Plumbing

P2503.6, P2503.2, P2503.5.1 Rough Plumbing and Shower Pan Installation

Accessibility Interpretations

The accessibility interpretations/newsletters/presentations are located on their own webpage, see following link:

http://www.ncdoi.com/OSFM/Engineering and Codes/Default.aspx?field1=Code Enforcement - Accessibility Update
_Newsletters&user=Code_Enforcement_Resources&sub=Accessibility_Update

Also refer to the Reminders and other Resources section for a summary table of the volumes and issues posted.

Electrical Interpretations

The Electrical interpretations are also available in a different location, see following link:

http://www.ncdoi.com/OSFM/State_Electrical_Division//Default.aspx?field1=State_Electrical_Code_and_Interpretations

Guidance Papers

GS 97-2 Contractor Insurance Questions.pdf

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.

Formal Interpretations and Appeals

No formal interpretations or appeals since prior newsletter

Formal interpretations and Appeals are available in the interpretations link shown above. They are located under the table heading "SPECIFIC ACTIONS".

Cumulative Supplements

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

Cumulative code changes link:

2017-2018 Approved Cumulative Amendments (Effective 1/1/2019)

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.

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/2012 NCBuildingCode amendments/2017-2019%20Approved%20Cumulative%20171212.pdf

Please note the 2017-2019 amendments apply to the 2018 NC Code Cycle.

Here are the Accumulative Supplement to the 2018 NC Building Code:

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/2018 NCBuildingCode amendments/2018 NCBuildingCode amendments.pdf

Education Section

OSFM Engineering Division Programs - *Inspector Education FY 2018-2019*

As of May 16 (about 2 weeks into the CEO annual renewal cycle) the COQB database says that 5,746 Standard Certificates out of 6,466 (89%) have met their CE requirements for 2019 renewals. That is great news!

For the 720 Standard Certificate "stragglers" attached are lists of courses that are active in the Code College Online under both CE and Supplemental course tabs. Since a few the Supplemental courses <u>also</u> offer CE online there should be adequate opportunity for ALL CEOs to meet their 6-hour CE requirement to renew.

Our Goal was to create 6 hours of CE content in each Trade AND to provide online Supplement courses for each of the Standard Courses.

While all of that has not been rolled over from the Code College forums (either 2017 or 2018) we've made good progress.... along with hearing about some "bugs" as we deploy these courses.

The 2018 update to the **NC Energy Conservation Code** provided lots of <u>new</u> CE online otherwise not available within the past 3 years.

(Thanks to Billy Hinton and our Student Temp Employees).

- BLDG 6 hrs
- ELEC 5 hrs
- MECH 5 hrs
- PLBG 3 hrs

The 2018 NC Fire Code Significant Changes course from the Code College provides online:

- BLDG 6 hrs
- FIRE 6 hrs

The **NASFM Construction Site Fire Safety Class** course was videotaped for future online availability as an OSFM sponsored course.

- FIRE 6 hrs
- BLDG 6 hrs

Three courses provide online CE for ANY Trade:

- Past Investigations 2 hrs
- Boone CO Incident 1 hr
- 2018 Admin Code & Policies Update 1 hr

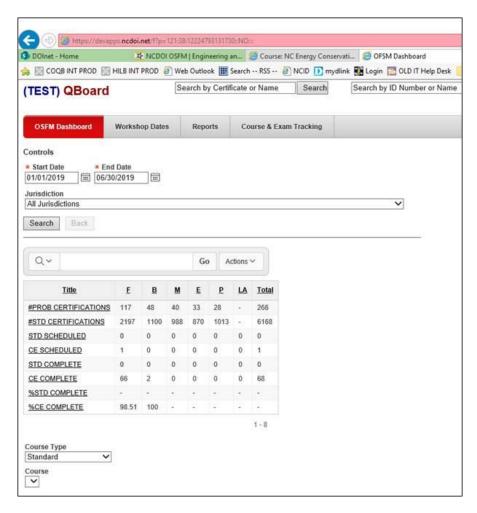
We are still working on transitioning additional Code College seminar courses to online....

I would also like to especially note that Beth Williams successfully transitioned the mandatory Standard Course Instructor workshop to an online / distance education format using Moodle worth 3 hrs CE for ANY Trade as well.

Looking ahead, the few online courses remaining on the web site are based on the 2012 codes and require revisions due to the new 2018 codes. **These will likely be removed after July 1**st. All <u>new</u> online courses offered through the Code College credit CE automatically to the CEO and provide a Certificate of Completion in PDF format for printout in their individual profile.

Please note that staff can add ANYONE with an email address to the COQB database to access the Supplemental tab Standard Course materials via the course roster. This will provide these users with a CEO ID# and login credentials. I have provided access for several licensing board members and their respective boards. Unfortunately, at this time, this does NOT automatically provide access to the CE tab courses – primarily because no Trade specialty is assigned for a "type" of certificate PQ, Probationary, Limited or Standard.

Finally, work is currently proceeding under the COQB annual IT maintenance window to create an "Education Dashboard" to allow various users of the system (i.e. AHJs, OSFM, COQB, CEOs, Sponsors, Instructors) a tool to monitor progress of attaining CE as well as Probationary Certificate holders finding and completing mandatory Standard Certificate courses through the Community College system. Below is a sample screen shot from the Development system. If you have suggestions regarding what indicators should be included, please let us know. For example, if we want to know how many CEOs (or what %) attended a particular course for CE, such a dashboard could provide the stats quickly.



Please email mike.hejduk@ncdoi.gov with your comments, questions or concerns.

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

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. They are, by design, the most thorough code training provided. All standard courses are now using the 2018 Code, so this is an excellent opportunity to both get the code updates and a more in-depth knowledge of the codes. In addition to the link above, you can also check out the websites of the professional organizations related to code.

COCO Newsletters

http://www.ncdoi.com/OSFM/Engineering and Codes/Default.aspx?field1=Code Enforcement - COCO Newsletters&user=Code Enforcement Resources

http://www.ncbia.org/

http://ncpia.us/

https://www.nc-mia.com/ (note new website address – formerly www.ncmia.com)

Reminders and other Resources

2018 NC Code Online version

As reported in previous newsletter, the 2018 NC Code is available on-line for free viewing, but it does not have full functionality. Although there was, for a while, a 2012 free on-line code that is fully downloadable and printable, THERE ARE PRESENTLY NO PROVISIONS FOR MAKING THE 2018 CODE THIS WAY. The 2012 code can still be viewed on-line, but the printability went away at the end of 2018 as required by the contract.

Ordering the 2018 NC Code - Discounted Code Books

To receive the on-line "members" purchasing discount, ANYONE can go through NC Department of Insurance Website, following this path:

- https://ncdoi.com/OSFM/Engineering and Codes/Default.aspx?field1=Codes -Code Book Sales&user=State Building Codes
- 2. After the Code Book Sales web page opens, press the "Purchase State Building Code On-line" hyperlink. See July 26, 2018 Engineering Newsletter for screen shots of webpages, or just go to the DOI website.
- 3. This is the web address that will take you to ICC's webpage that has all the North Carolina Code Books. When you order from the site you are redirected to, you will receive the discount. If you enter the ICC Webpage directly, you will not get the discount.

There are several different links on the DOI website to get to "purchase codes" online. All of them link to the same place on the ICC website and the discount will be applied. Only one of the links is shown in this article. If you are on the ICC website, and back-out of the path, and then go back into the ordering process from within the ICC website, you may not get the discount. You may want to start over with the NCDOI website if you are not sure you are getting the members only discount.

Accessibility Newsletters

This was reported on in a prior newsletter. There are many presentations and interpretations in the newsletters for Accessibility. They are available at the following link:

http://www.ncdoi.com/OSFM/Engineering and Codes/Default.aspx?field1=Code Enforcement - Accessibility Update - Newsletters&user=Code Enforcement Resources&sub=Accessibility Update

The statements and views in these newsletters carry the same weight as a web interpretation. Many of them are case studies and may be project-specific, but they are generally covering a topic that can be applied to other similar buildings.

Please note the newsletter is for multiple years, and you want to make sure the issue you are researching is not superseded by a later edition. The issues are posted in chronological order (oldest at the top, newest at the bottom of the webpage). The volume # is simply referring to the sequence in which it was published and not an actual calendar year. Likewise, the Issue # is the sequential newsletter of that year and does not necessarily correspond to a month. Refer to Table 1 for details.

TABLE 1: VOLUME AND ISSUE CROSS-REFERENCE TO CALENDAR YEAR

Volume #, Issue #'s	Corresponding Year
Volume 1, Issue 1,2,3	2010, 3 Issues
Volume 2, Issue 1,2,3,4,5,6,7	2011, 7 issues

Volume 3, Issue 1,2,3,4	2012, 4 Issues
Volume 4, Issue 1,2,3,4	2013, 4 Issues
Volume 5, Issue 1,2	2014, 2 Issues
Volume 6, Issue 1,2	2015, 2 Issues
Volume 7, Issue 1,2,3,,,8	2016, 8 Issues
Volume 8, Issue 1,2,3,,,11	2017, 11 Issues
Volume 9, Issue 1,2,3,,,8	2018, 8 issues to date

From Volume 9, Issue 8

NCBC 1104.4 Exception 1 – Elevator Requirements ANSI 603.5-Baby-Changing Tables ANSI 502.4.1 Access Aisles NCBC 1109.8-R-2 Storage Follow-Up

Titles From Volume 9, Issue 7 include:

NC Existing Building Code 705

ANSI 406.12/.13/.14-Detectable Warnings as Skateboard Deterrents: NOT!

NCBC 1109.2.8-Stages: Churches + Perf. Areas

NCBC 1007.2 + Accessible Exits

NCBC 1104.5-Location of Accessible Route

2018 NC Codes Errata

Carl Martin

With the release of the 2018 NC Building Codes, you may discover errors in the documents. If you discover an error, we would like to invite you to share it with our staff as we verify and document these discrepancies. We will then forward them to ICC or post them on our website dependent upon whether the correction is related to the base document or the NC amendments.

Errata is different from a desired code change. Errata are basically editing mistakes, such as dropped footnotes, references to code sections that got moved or misplaced, references to table or figures that are inaccurate, etc. Seemingly insignificant grammar changes that change the code meaning **would not automatically be considered errata**.

carl.martin@ncdoi.gov

Please submit your corrections to the following contacts:

Building

	_	_
Ali Kojoori	Residential	ali.kojoori@ncdoi.gov
Dan Dittman	Energy	Dan.Dittman@ncdoi.gov
Dan Austin	Fire	dan.austin@ncdoi.gov
Vacant	Existing Building	carl.martin@ncdoi.gov
Bill Moeller	Plumbing	bill.moeller@ncdoi.gov
Dan Dittman	Mechanical, Fuel Gas	dan.dittman@ncdoi.gov
Joseph Starling	Electrical	joseph.starling@ncdoi.gov
Mike Page	Administrative	mike.page@ncdoi.gov
Vacant	Accessibility	carl.martin@ncdoi.gov

Current ICC Errata are posted at http://www.iccsafe.org/cs/codes/Pages/errata.aspx

Current (2012) NC Errata are posted at:

http://www.ncdoi.com/OSFM/Engineering and Codes/Documents/2012 NCBuildingCode amendments/Errata%20Central.pdf

As soon as errata are identified, they will be posted to a site very close to the 2012 errata location. The reader can use the 2012 sheets as examples to what errata are vs. amendments.

Clarification on Zone 3 Energy Code Requirements

Please refer to the February 2019 Engineering Newsletter for clarifications concerning Zone 3.

Energy Code - ResCheck and ComCheck Clarifications

Please refer to the February 2019 Engineering Newsletter for clarifications on the availability of ResCheck and ComCheck and acceptable alternates.

End of Newsletter