

MIKE CAUSEY, Commissioner of Insurance

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June 2021-ver. 2

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Introduction

Welcome to the June 2021 OSFM Engineering Newsletter, ver. 2. This newsletter is being reposted over the original June 2021 newsletter to allow for the notice of an interpretation on non-prescriptive wood species. Since our last newsletter in April, there was a regularly scheduled Building Code Council meeting held June 8th, 2021. The results of the meeting will be posted shortly in the minutes, but the results of the D-items are noted, unofficially, in the Building Code Council Approved Rule Changes article below.

A press release clarifying the proper use of non-prescriptive wood species has been issued by NCDOI, along with an interpretation to use as an aid in identifying the species affected and what steps can be taken for its use.

As a reminder, the ad hoc process has begun for the review and development of the 2024 NC Code. See details and tentative timeline in the Reminders and other Resources section.

Current Topics

European Wood Species Interpretation – Requirements for Proper Use

The NC Department of Insurance issued a statement concerning the use of wood species not addressed in the prescriptive NC Building Code, and it was reprinted in the first posting of the June 2021 Engineering Newsletter. Since the post, an interpretation has been developed by NCDOI staff to address the issue. Please note, there are allowances for its proper use; it is not outright banned. The interpretation can be found at the following link:

https://www.ncosfm.gov/residential/050211-use-lumber-species-not-recognized-residential-code



Please check the NCDOI-OSFM press release website for updates on this matter that may supersede the June 15, 2021 notice.

2020 State Electrical Code – Effective Date October 1, 2021

The 2020 State Electrical Code (2020 NEC with North Carolina Amendments) was accepted by the Building Code Council on June 8, 2021. Its effective date is set at October 1, 2021.

Link to the State Amendments to the 2020 NEC for the 2020 State Electrical Code. BCC Agenda - 20201208 - Proposed 2020 State Electrical Code Amendments | OSFM (ncosfm.gov)

Reprint of effective date notice sent to all electrical certificate holders: ATTN: NC Code Enforcement Officials

The 2020 State Electrical Code (2020 NEC with State Amendments) was accepted by the Building Code Council on June 8, 2021. The effective date of the 2020 State Electrical Code is October 1, 2021.

While most electrical contractors and inspectors have either received or in the process of receiving some type of continuing education based on the 2020 NEC changes, the majority of education is developed from national reference material. Most instructors incorporate the State Amendments into the national reference material. However, many of the 2017 Amendments have been excluded in the 2020 State Electrical Code; therefore, those State revisions are not highlighted in national reference material even when incorporating the 2020 Amendments, because the majority of the 2017 Amendments were based on revisions highlighted in the 2017 national reference material.

In an effort to promote consistent educational material being taught, the State Electrical Division has created a document that highlights the most significant changes between the 2017 and 2020 State Electrical Codes that primarily focuses on updates in the Amendments.

To view this document, click on the link below and in the section designated for the 2020 State Electrical Code, look for the document named "Synopsis of Significant Changes Applying the 2020 North Carolina State Electrical Code". https://www.ncosfm.gov/codes/state-electrical-division/state-electrical-code-and-interpretations

The State Electrical Division has also created a compact version of the 2020 State Electrical Code Amendment Package (formally known as "Blue Pages") that does not have all the strikethroughs.

End of reprint

RCI update

The state test for certification as a Residential Change Out Inspector has been developed and is set to be administered for the first round of students who attended the RCI pilot courses. Refer to the Qualification Board Update section for further

information. These certificate holders will soon be available to fulfill a one-person team for the plumbing, electrical and mechanical inspection for a changeout appliance.

New NC Regulations for Manufactured Homes – 2019 Edition

The 2019 NC Regulations for Manufactured Homes became effective on 9/1/2019. The 2004 Edition was accepted until 1/1/2021. Both the 2004 and the 2019 Editions are applicable to used homes only. The 2019 Regulations is substantially the same as the HUD Part 3285/3286 Model Manufactured Home Installation Standards for new homes. New manufactured homes are required to be installed using the manufacturer's installation instruction manual. Used homes may be installed using the installation manual that came with the home, if available.

The 2019 Regulations (and revisions) are posted online and can be downloaded, printed or viewed from the website. The regulations are available at the link below (you will have to scroll down a little once you hit the main webpage, see Figure 1 for where links are situated on web page) as we want contractors, designers and inspectors to have ready access.

https://www.ncosfm.gov/manufactured-bldg/manufactured-homes





The 2019 Regulations may be purchased from 8:30am to 4:30pm, Monday thru Friday. For details and availability, contact Lori Miller at 919-647-0029 or lori.miller@ncdoi.gov.

Staff provided three 2-hour classes at the 2021 NCBIA winter seminars to highlight changes in the 2019 Regulations. We have provided two 6-hour training classes to introduce the regulations to inspectors and set-up contractors. Others will be arranged as needed and we plan to post the PowerPoints online.

Code College - 2021

This year's Code College will be held September 27 through October 1, and is being developed as an "Exam Prep" course to address the low State exam pass rates for Level 1, Fire, Building and Electrical and the hundreds of individuals whose probationary certificates have expired and hold temporary certificates that will expire December 31, 2021. Courses are in development now. This year the week-long course will be taught in-person and remote via WebEx meetings. Anyone interested in receiving CE must complete the practice quiz questions in the Learning Management System for each trade. Pre-registration is available through the link:

NCDOI Code College 2021, Sept. 27 - Oct. 1 ** Pre-Registration only** (office.com)

Recurring Articles

Building Code Council Approved Rule Changes

A regularly scheduled quarterly BCC meeting was held on June 8th, 2021. The full agenda can be read at the link listed below. The link will take you to the BCC Minutes webpage and the reader must then click on the .pdf file to open the agenda file. The minutes for June meeting are not published yet, but the unofficial results of the D-items are posted below. The minutes from the March 2021 meeting are posted, and they are available at the link below.

BCC Meeting Agenda-June 8, 2021 https://www.ncosfm.gov/bcc-agenda-20210608-june-8-2021

BCC Meeting Minutes-March 2021 https://www.ncosfm.gov/bcc-minutes-march-9-2021

There is a goal of posting the full proposals of the B-items for an upcoming BCC meeting. This was done for the March 2021 Meeting, but there were formatting problems that cropped up when this was done, and the NCDOI-OSFM website will need a little modification to be able to accommodate this for future BCC meetings.

Once the Building-Code-Council-approved June D-items are also approved by the Rule Review Commission, (sometimes an amendment gets sent back to Building Code Council for various technical reasons) the adopted rules will be placed on the NCDOI Engineering website. Please refer to the Cumulative Supplements article of this newsletter for the link to the cumulative supplements from past meetings.

The full review of the March-approved code amendments is left to the reader, but **the titles of each item** are bulleted below. Remember these are not final until they are through the Rules Review process. The approved March D-items, if approved by Rules Review Commission, will be effective January 1, 2022.

BCC Proposed Amendments-June 2021 (draft results)

- Item D 1 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C. to amend the 2018 Residential Code, Chapter 44 as follows (200901 Item B-8): (Remainder not shown for brevity) – approved
- Item D 2 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Residential Code, Section M1402.1 as follows (200901 Item B-9): **approved**
- Item D 3 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Residential Code, Section M1403.1 as follows (200901 Item B-10): (Remainder not shown for brevity) approved
- Item D 4 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Mechanical Code, Chapter 15 as follows (200901 Item B-11): (Remainder not shown for brevity) – approved
- Item D 5 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Mechanical Code, Section 908.1 as follows (200901 Item B-12): (Remainder not shown for brevity) – approved
- Item D 6 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Mechanical Code, Sections 918.1 and 918.2 as follows (200901 Item B-13): (Remainder not shown for brevity) approved
- Item D 7 Request from Julius Ballanco representing JB Engineering and Code Consulting, P.C./Daikin U.S. to amend the 2018 Mechanical Code, Section 1101 as follows (200901 Item B-14): (Remainder not shown for brevity) approved
- Item D 8 Request from Robert Privott representing N.C. Home Builders Association and Jeff Tiller to amend the 2018 Energy Code, Section R406.2 as follows (200901 Item B-15): (Remainder not shown for brevity) – approved
- Item D 9 Request from Robert Privott representing N.C. Home Builders Association and Jeff Tiller to add the 2018 N.C. Energy Code, Chapter 2 Definitions as follows (200901 Item B-20): (Remainder not shown for brevity) – approved

- Item D 10 Request from Robert Privott representing N.C. Home Builders Association and Jeff Tiller to amend the 2018 N.C. Residential Code, Section N1106.2 Mandatory Requirements as follows (200901 Item B-21): (Remainder not shown for brevity) – approved
- Item D 11 Request from Wayne Hamilton representing the NC Building Code Council to delete the 2018 NC Fire Code, Section 304.4.4 as follows (201208 Item B-1): – approved
- Item D 12 Request by Tim Henshaw representing the NC Fire Code Revision Committee to amend the 2018 NC Fire Code, Section 510 and Chapter 80 as follows (201208 Item B-5): (Remainder not shown for brevity) – approved
- Item D 13 Request from Tim Henshaw representing NC Fire Code Revision Committee to amend the 2018 NC Building Code, Section 403.4.5, 916, and 916.1 as follows (201208 Item B-6): (Remainder not shown for brevity) – approved
- Item D 14 Request from the NC Building Code Council, Electrical Ad-Hoc Committee, to adopt the 2020 North Carolina Electrical Code (201208 Item B-7): (Remainder not shown for brevity) **approved**

Qualification Board Update

Residential Changeout Inspector (RCI) Standard Certificate Update

Staff has completed development of a 150 question State Exam for the Residential Changeout Inspector Standard Certificate. This test is similar to other State exams for the technical codes. Approximately 40 individuals who took the pilot courses already hold a Standard Certificate in one of Mechanical, Electrical or Plumbing and are eligible to take the State exam without a probationary period or completion of the performance log. Staff has scheduled several remotely proctored exam sessions for these individuals to take the test in June.

Inspector Open Mic -

Every Friday morning from 8:30 to 9:00, staff host an "Inspector Open Mic" via WebEx. This is an informal forum for code officials to ask questions. The meeting link is on the web page <u>https://www.ncosfm.gov/licensing-cert/code-officials-qualification-board-coqb/coqb-code-education</u>

Next Steps

Next steps will include issuance of Probationary Certificates to course graduates, development of the State Exam and certification of instructors to teach the course through the Community College System similar to other Board Standard Certificate courses. NOTE: Anyone interested in earning a RCI Probationary Certificate MUST pass the course EOC first.

Minutes

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

Meeting Minutes and Agendas

https://www.ncosfm.gov/licensing-cert/code-officials-qualification-board-coqb/coqb-meeting-dates

FIGURE 3: IMAGE OF Q'BOARD WEBSITE TABLE OF MINUTES

Minutes

COQB Minutes - January 26, 2021 Board Mtg

COQB Minutes - April 6, 2021 Special Board Mtg

COQB Minutes - October 27, 2021 Board Mtg

COQB Minutes - July 28, 2020 Board Mtg

- Sam Whittington: Certification and Investigator, Complaints 919-647-0028 <u>sam.whittington@ncdoi.gov</u>
- The second investigator position is presently vacant

Department Notes

Engineering Department

Personnel Notes

Mike Page, PE

Mike Page has retired after approximately 30 years of service with NCDOI. His work was an asset to many code officials, contractors, and building owners in North Carolina. Mike Page has held several positions at NCDOI, including Investigator with the Qualifications Board, Code Consultant for Administrative Code and most recently as Supervisor of the Mechanical, Plumbing and Energy Code consultants. Mike's tenure with NCDOI was one of professionalism, dedication to customer service and continuity of work deliverables to clients amidst numerous code cycles, managerial changes, and department reorganizations. Through it all, everyone could count on Mike Page, and we wish him well in his retirement.

Pam Schooler, PE

We are excited to welcome Pamela (Pam) Schooler to OSFM. She joined the Engineering and Codes Division in late April. Pam will be responsible for interpretations relative to the NC Existing Building Code and its consistent enforcement within the state.

Pam joins us from Central Engineering within NC Department of Public Safety. Prior to resuming public service, she successfully launched an international engineering consulting practice based on her ability to work independently but more importantly, collaboratively. Pam keeps current in the application of the best technical and risk management practices in building design and construction through her research and work with NCEES. She serves on their FE and PE Exam Development Committees. During self-quarantine, Pam worked on her bridge game.

As of June 2021, here is the staff list and respective responsibilities for the NC Building Code:

• Vacant: Building Code (non-accessibility)

- Charlie Johnson: Fire Code (includes Chapter 9 of the NCBC) 919-647-0094 <u>charlie.johnson@ncdoi.gov</u>
- Pak Yip: Residential Code 919-647-0007 pak.yip@ncdoi.gov
- Jim Rodgers: Residential Code (<u>non-structural</u>) 919-647-0056, 919-270-3699 (cell) jim.rodgers@ncdoi.gov
- Existing Building Code Pam Schooler 919-647-0011
- Tara Barthelmess: Accessibility 919-647-0014 <u>tara.barthelmess@ncdoi.gov</u>
- Mark Burns: Plumbing Code
 919-647-0006 <u>mark.burns@ncdoi.gov</u>
- David Rittlinger: Mechanical and Fuel Gas Code 919-647-0008 <u>david.rittlinger@ncdoi.gov</u>
- Dan Dittman: Energy Code
 919-647-0012 <u>dan.dittman@ncdoi.gov</u>

State Electrical Division Contacts

- Danny Thomas: Electrical Code General Electrical Code Questions 919-647-0062 <u>daniel.thomas@ncdoi.gov</u>
- Joe Starling: State Electrical Engineer
 919-397-6159 joseph.starling@ncdoi.gov

In addition, the following topics will be addressed by:

- Engineering Manager: Carl Martin contact for Statutes, Appeals, Council items (other than meeting minutes and agenda), Engineer Elements and Components,
- Vacant (Carl Martin, interim): BCC meeting minutes and agenda, Rules Review Commission, Formal interpretations, Administrative Code (non-statute) 919-647-0009 carl.martin@ncdoi.gov
- Sam Whittington: Certification and Investigator, Complaints 919-647-0028 sam.whittington@ncdoi.gov
- **vacant**: Certification and Investigator, Complaints -contact Sam Whittington

Link to New Website Personnel Contacts for Codes and Interpretations https://www.ncosfm.gov/codes/contact-codes-and-interpretations

New Code Interpretations, Guidance Papers, and Appeals Posted

Since the prior newsletter, the following web interpretations, guidance papers, or appeals have been posted. Trades not shown did not have new web interpretations posted. The matrix of codes has been replaced with a drop-down menu box-driven sort function. Please notice that whenever you sort, then view an interpretation, you need to re-apply the sort function as the site defaults back to all the interpretations when the back-arrow is pressed.

https://www.ncosfm.gov/interpretations

FIGURE 4: NEW LOOK OF CODE INTERPRETATIONS LANDING PAGE

OSFM Code Interpretations



Code Type	Edition	Search	
- Any - 🔹	- Any - 🔻		Apply

Interpretations

Fire Protection

No additional since April 2021 newsletter

Energy

No additional since April 2021 newsletter

Plumbing

No additional since April 2021 newsletter

Residential

R311.7.6 - Doors on Landings at Bottom of Interior Stairs.doc R4505 - Exterior Wall Construction in High Wind Zones R502.1.1 - The Use of Lumber Species not Recognized by the Residential Code

Accessibility Interpretations

No additional since April 2021 newsletter

Electrical Interpretations

Presently, if you use the main Interpretations site, you need to click on "ALL" edition to view the Electrical interpretations on that site. However, if you go to the main Electrical Division site, there are interpretations for the 2017 NC Electrical Code, see following link:

https://www.ncosfm.gov/codes/state-electrical-division/state-electrical-code-and-interpretations

The link should take you to a webpage, and you should see the following line items when you scroll down.

2017 Electrical Interpretations
Interpretation
90.2(B)(5) - Electrical Utility Conductors and Equipment
Article 100 - Structures Defined
110.14 - Tightening Torque Inspection and Responsibility
<u>210.8(A)(4) - GFCI Protection in a Crawl Space</u>

FIGURE 5: MAIN ELECTRICAL CODE INTERPRETATIONS SECTION

The illustrated diagrams that used to be on the Electrical Division website are not available yet at this time due to the reformatting of the website, but we are working to get them formatted so they can be posted again.

Formal Interpretations and Appeals and Guidance Papers Here are the **Formal Interpretations** posted since the prior Newsletter:

210420 Brunswick Co NCRC M2801.4 Maintenance Platform for Tankless Water Heater 210420 Thomas Czyzyk NCBC Ch 11 Accessible Dwelling Units and Accessible Routes

Appeals

20210429 Ballantyne Village Parking NCODI Decision

Guidance Papers No additional since April 2021 newsletter

Cumulative Supplements

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

Cumulative code changes link: https://www.ncosfm.gov/codes/codes-current-and-past

Each code volume has a file associated with it. The files range in size from three pages (Fuel Gas) to 64 pages (Residential). If the reader would find a table of contents beneficial for the quick perusal of these documents, please contact Rob Roegner <u>Rob.Roegner@ncdoi.gov</u> or Carl Martin <u>Carl.Martin@ncdoi.gov</u>.

<u>2018 Administrative</u> ^亿	Approved Amendments
2018 Building 🗗	Approved Amendments
2018 Residential 🗗	Approved Amendments
2018 Energy Conservation 더	Approved Amendments
2018 Existing Building 🗗	Approved Amendments
<u>2018 Fire</u> [□]	Approved Amendments
<u>2018 Fuel Gas</u> [□]	Approved Amendments
2018 Mechanical d	Approved Amendments
2018 Plumbing 🗗	Approved Amendments
2017 Electrical Code *	Approved Amendments
	` ~ `

-

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.

Education Section

NC Building Code Training

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

https://www.ncosfm.gov/licensing-cert/code-officials-qualification-board-coqb/coqb-code-education

Once the web page is accessed, click the "**FIND A CLASS**" button to refine your search. Many in-person classes have been reopened. Please check out the available on-line courses, and carefully read the locations and means of course offering. It is suggested that you contact the organization or individual providing the training to verify the locations and means of training before traveling to any given site or registering for a class. As always, please consider the use of Standard Courses for fulfilling Con-Ed requirements, as they are an underutilized tool for that purpose.

Other websites of Inspector Organizations that offer training

http://www.ncbia.org/	(Building Inspectors Association)
http://ncpia.us/	(Plumbing Inspectors Association)
https://www.nc-mia.com/	(Mechanical Inspectors note new website address – formerly www.ncmia.com)
http://www.ncfma.com/	(Fire Marshals Association)
https://nceia.com/	(Electrical Inspectors, note the new website address)

SMACNA Training

The NCMIA is offering a virtual SMACNA training course which has been very beneficial to commercial and residential HVAC contractors. Please see the link at the <u>www.nc-mia.com</u> website, and follow the tabs to the training and resources webpage. You may have to scroll down to see the announcement.

August 18th, 2021 class

SMACNA Training on NEW 2021 Manual for Commercial Duct construction

SMACNA DCS-101 Duct Basics SMACNA DCS-102 Rectangular internal supports and large duct SMACNA DCS-103 Round and Oval construction plus hangers SMACNA-Ducts for non-HVAC applications

8:00 AM - 3:00 PM | Workshops (1-hr lunch break) You must have a device with a camera and microphone to attend, and you have to have the camera on and you in the image. If you are not, then you will not get credit for the class.

Reminder: Before signing up for any class, verify the course number. Attendee will not receive credit for courses that they attended within the prior three years. Some courses are taught at multiple sites across multiple years.

Reminders and other Resources

Open Mic

The department (OSFM-Engineering) has been experimenting with better ways to provide updates and outreach to code officials, and one of the methods being given a test-drive is a virtual open – mic Webex meeting. In order to view the times, proceed to the following link, and follow the directions therein:

Inspector Open Mic | OSFM (ncosfm.gov)

Please participate as your time allows.

Tentative 2024 NC Code Development Calendar:

The ad hoc process has begun for the 2024 NC Building Codes. The ad hoc committees have begun meeting, or will begin meeting shortly for their respective code volumes. The meeting notices will be published at the following location:

https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-ad-hoc-committee-meeting-information

If a January 1, 2024 date is the goal, then the codes should be submitted as B-Items no later than the December 2022 meeting along with the fiscal notes. The schedule would go as follows:

- December 2022 B-Item
- March 2023 C-Item

- June 2023 D-Item
- Rules Review Approval between June 2023 and September 2023.
- Proof reading and submittal to ICC for printing after Rules Review has approved.

The ad-hoc meetings are announced on the following location: https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-meeting-dates

Figure 7: Snip of ad hoc meeting announcement

Future Meetings



Code Amendments Going into Effect

Every January 1st, a number of previously approved code amendments go into effect. Please refer to the following link:

https://www.ncosfm.gov/codes/codes-current-and-past

Accessibility Newsletters

Note: Previously, it was cited that the interpretations within the Accessibility Newsletters were the equivalent of a web interpretation, but the current Deputy Commissioner, Carl Martin, has deemed them to more appropriately be guidance or informal interpretations. This note will be included in future printings.

With the updating of the NCDOI webpage, the Accessibility Newsletter were removed. If there are any questions about a specific topics or general Accessibility questions, please contact Tara Barthelmess (919-647-0014).

NCDOI-OSFM Webpage Updated

As mentioned in earlier Engineering Newsletters, we encourage the users of the redesigned NCDOI/NC OSFM website to utilize the feedback feature at the bottom of most of the webpages. See following image for what the link looks like.



FIGURE 8: PLEASE USE THIS FUNCTION

End of Newsletter

Revisions from June 25th 2021 posting -

1. NCDOI press release article on European wood species was removed, and article was updated with NCDOI interpretation for non-prescriptive wood species

2. Link for NCDOI Code College was changed.

3. Added title of newly posted interpretation for lumber species not recognized by the Residential code

4. Corrected the expiration date of temporary certificates to December 31, it was incorrectly cited as December 3.