

# 42<sup>nd</sup> Annual State Construction Conference

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**NC**★**DOA**  
Department of Administration  
**State Construction Office**

# North Carolina Building Code Council Update

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# Duties of the Building Code Council

**202.1. Duties.** The Building Code Council has the following duties:

1. Prepare and adopt the North Carolina State Building Code;
2. Revise or amend the code;
3. Hear appeals from decisions of state enforcement agencies as to any matter related to the code;
4. Make a thorough and continuing study of the manner of enforcement of the code and building laws;
5. Make recommendations to State agencies about any changes in administrative practices which could improve the enforcement of the code or building laws; and
6. Recommend to the General Assembly statutory changes to simplify and improve the building laws. (General Statutes 143-138, 143-140, and 143-142)

# Building Code Council

**§ 143-136.** There is hereby created a Building Code Council, which shall be composed of 17 members appointed by the Governor, consisting of the following:

- (2) One licensed general contractor.
- (3) One licensed general contractor specializing in residential construction.
- (4) One licensed general contractor specializing in coastal residential construction.
- (5) One licensed engineer practicing structural engineering.
- (6) One licensed engineer practicing mechanical engineering.
- (7) One licensed engineer practicing electrical engineering.
- (8) One licensed plumbing and heating contractor.
- (9) One municipal or county building inspector.
- (10) One licensed liquid petroleum gas dealer/contractor involved in the design of natural and liquid petroleum gas systems who has expertise and experience in natural and liquid petroleum gas piping, venting and appliances.
- (11) One representative of the public who is not a member of the building construction industry.
- (12) One licensed electrical contractor.
- (13) One licensed engineer on the engineering staff of a State agency charged with approval of plans of State-owned buildings.
- (14) One municipal elected official or city manager.
- (15) One county commissioner or county manager.
- (16) One active member of the North Carolina fire service with expertise in fire safety, as recommended by the North Carolina State Firefighters' Association.



# Code Development

- In the middle of the code cycle, the members will make motions for the Chair to assign Ad-Hoc committees to begin work on the next cycle of codes.
- DOI staff will arrange for times and locations for the meetings.
- DOI staff acts as subject matter experts when questions are brought up by Ad-Hoc committee members.



# Committee Work Completed

When the committee's work is brought forward;

- The changes are put on the register for public notification,
- A fiscal note is prepared for the Office of State Budget
- The agenda identifies this product for public hearing.
- Standing committee votes on code

The rules contained in NCGS 150B requires the register reflect the time and location for the public comment.

Public comment March 14<sup>th</sup> for  
2024 Building Code  
2024 Fire Code  
2024 Existing Buildings Code  
2024 Energy Conservation Code

# Rulemaking Process

- After the public hearing and the written comment period has ended, the Building Code Council can vote to accept or deny the new code.
- After approval, the Building Code Council sets an adoption date(s)
- The common approach by the Building Code Council on adoption dates has been to incorporate a transition period.



# 2024 Fire Code Changes

## Chapter 1 – Administration

- Adds new operational permits for: additive manufacturing, aerosol cooking spray products, energy storage systems, mobile food trucks, outdoor assembly events for more than 1,000 people, plant extraction systems, and
- Construction permits for energy storage systems, fuel cell power systems, gas detection systems, high-piled combustible storage, motor vehicle repair rooms/booths, plant extraction facilities, special event structures

## Chapter 2 – Definitions

- Adds various new definitions to align with new content and revised a few to clarify its intended use

## Chapter 3 – General Requirements

- Adds new sections for outdoor pallet storage, mobile food trucks, additive manufacturing (3D Printing)



# 2024 Fire Code Changes

## Chapter 5 – Fire Service Features

- Proposing to codify Appendix B (Fire Flow) and D (Fire Apparatus Access) into applicable Chapter 5 sections (503 and 507).
- Adding new Section 511 targeting specifically residential developments at request of legislature to address access, water supply and premise identification for subdivisions and townhomes where buildings are constructed under NC Residential Code.
- Committee organized for last 18 months and have made proposals to integrate Appendix C and B to provide consistent development standards across the state. Currently, appendices are adopted locally, and this has led to discrepancies between neighboring jurisdictions with like developments.

# 2024 Fire Code Changes

## **Chapter 6 – Building Services & Systems**

- Chapter was reformatted, new requirements added to Section 608 for the Group A2L refrigerants, new Section 610 for clothes dryer exhaust systems

## **Chapter 7 – Fire Resistant Rated Construction**

- Adds new sections for the maintenance of penetrations in fire rated assemblies, joints and voids, door and window openings, duct and air transfer openings and spray fire-resistant materials and intumescent fire-resistant materials

## **Chapter 9 – Fire Protection Systems**

- Adds new requirements for integrated testing, added new sprinkler requirements for S-1 distilled spirits/wine, upholstered furniture, mechanical access parking garages, adds requirements for aerosol and domestic (I-1, I-2, R-2) fire-extinguishing systems, fire alarm requirements for self-service storage facilities, added section on smokeproof enclosures for smoke control, new Section 916 for gas detection systems and 917 for mass notification systems

## **Chapter 10 – Means of Egress**

- Adds requirements for calculating occupant loads for multi-use areas and multiple occupancy, locking arrangements in educational occupancies and security access turnstiles

# 2024 Fire Code Changes

## **Chapter 12 – Energy Storage Systems**

- New chapter that incorporates emergency and standby power requirements and solar photovoltaic from current code and adds new sections on portable generators, stationary fuel cell power systems and electrical energy storage systems (ESS).
- Previously, requirements for energy systems, such as standby power systems, PV systems and stationary battery systems were scattered in various locations of Chapter 6.

## **Chapter 22 – Combustible Dust-Producing Operations**

- Adds requirements for dust explosion prevention and dust explosion screening tests

## **Chapter 28 – Lumber Yards**

- Adds new section for outdoor storage of pallets at pallet manufacturing and recycling plants

## **Chapter 31 – Tents & Membrane Structures**

- Adds new section that provides requirements for outdoor assembly events when there are more than 1,000 people in attendance

# 2024 Fire Code Changes

## **Chapter 32 – High-Piled Combustible Storage**

- Adds requirements for high-piled storage facilities to maintain approved plans on site and groups commodity classifications based on the product

## **Chapter 33 – Fire Safety During Construction & Demolition**

- Expanded requirements for site safety plans, mandates daily fire safety inspections, adds specific requirements for high-rise buildings of Type IV-A, IV-B and IV-C construction, adds specific requirements for a fire watch, added new water supply requirements based on construction type

## **Chapter 38 – Higher Education Laboratories**

- New chapter for higher education laboratories. These academic institutions often have chemistry, biology, medical, engineering, and other laboratories where hazardous materials are used. Applying the general hazardous material provisions has been difficult because of the way these laboratories operate. The intent behind this chapter is to allow aggregate amounts of hazardous materials to exceed the MAQ and not be classified as Group H. The lower densities controlled throughout the building mitigates the overall risk.



# 2024 Fire Code Changes

## **Chapter 39 – Processing and Extraction Facilities**

- New chapter for processing and extraction facilities. Chapter 39 focuses on the processing and extraction of oils and fats from various plants. This chapter provides the tools to appropriately address the hazards while also meeting the unique needs of industry. This chapter has provisions for a technical report prepared by a registered design professional and requires site inspections to make sure equipment and systems are installed as designed and approved.

## **Chapter 40 – Storage of Distilled Spirits and Wines**

- New chapter for the storage of distilled spirits and wine. These occupancies are not classified as a Group H occupancy. Instead, as listed in the Building Code, the storage of beverages that contain up to and including 16-percent alcohol are classified as a Group S-2 occupancy, and those that contain over 16-percent alcohol content are classified as a Group S-1 occupancy.
- Those that are classified as a Group S-1 occupancy are required to be provided with an automatic sprinkler system throughout the Group S-1 fire area, regardless of size.

# 2024 Fire Code Changes

## **Chapter 53 – Compressed Gases**

- Revised Section 5307 to differentiate requirements for insulated liquid carbon dioxide systems used in beverage dispensing applications and carbon dioxide enrichment systems.

## **Chapter 57 – Flammable & Combustible Liquids**

- Adds new Section 5707 to provide requirements for on-demand mobile fueling operations.

## **Chapter 80 – Referenced Standards**

- Updated various referenced standards with newer versions and add some new standards based on new technology (example NFPA 45 – Standard on Fire Protection for Laboratories Using Chemicals because of the new Chapter 38 – Higher Education Laboratories

New Appendix N that provides fire safety requirements for indoor trade shows and exhibitions

