

Chapter 1

101.1 Title. These regulations shall be known as the North Carolina Fire Code as approved by the North Carolina Building Code Council on March 11, 2008, to be effective January 1, 2009. References to the International Code shall mean the North Carolina Codes. The North Carolina amendments to the International Codes are underlined.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted by the local governing authority having jurisdiction.

101.6 Requirements of other State agencies, occupational licensing boards, or commissions. The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards, and commissions. It shall be the responsibility of a permit holder, design professional, contractor, or occupational license holder to determine whether any additional requirements exist.

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.
3. When the current NC Building Codes require certain safety to life requirements for existing buildings, those requirements shall apply.
4. Existing structures, facilities and conditions which, in the opinion of the fire code official, constitute a distinct hazard to life or property.

102.3 Change of use or occupancy. The provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes shall apply to all buildings undergoing a change of occupancy.

102.10 Exceptions to applicability. The provisions of this code shall not apply to the following:

1. Occupancy of one and two family dwellings.
2. Farm buildings located outside the building rules jurisdiction of any municipality.

Exception: All buildings used for sleeping purposes shall conform to the provisions of the technical codes.

3. The design, construction, location, installation or operation of equipment for storing, handling, and transporting liquefied petroleum gases for fuel purposes up to the first stage regulator, liquefied natural gases, and anhydrous ammonia or other liquid fertilizers.

4. The design, construction, location, installation or operation of equipment or facilities of a public utility, as defined in General Statute 62-3, or an electric or telephone membership corporation, including without limitation poles, towers, and other structures supporting electric or communication lines from the distribution network up to the meter location.

Exception: All buildings owned and operated by a public utility or an electric or telephone membership corporation shall meet the provisions of the Code.

5. The Storage and Handling of Hazardous Chemicals Right to Know Act, North Carolina General Statute 95-173 through 95-218.

6. Open burning pursuant to General Statute 113-60.21 through 113-60.31 under the jurisdiction of the Department of Environmental, Health and Natural Resources.

103.2 Appointment. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

103.3 Deputies. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

103.4 Liability. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

103.4.1 Legal defense. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.3 Right of entry. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.3.1 Warrant. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.4 Identification. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.5 Notices and orders. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.6 Official records. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

(Subsections 104.6.1 through 104.6.4 deleted.)

104.8 Modifications. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.9 Alternative materials and methods. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.10 Fire investigations. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

104.10.1 Assistance from other agencies. Deleted.

105.1.2 Types of permits. There shall be two types of permits as follows:

1. Operational permit. An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 105.6 for either:

1.1. A prescribed period.

1.2. Until renewed or revoked.

Operational permits listed as mandatory in Section 105.6 shall be obtained from the fire code official and are legally enforceable. For decisions on any appeals of the provisions of mandatory permits, see the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

Operational permits listed as optional in Section 105.6 must be adopted by local ordinance to be legally issued by the fire code official. A permit listed as optional does not make any of the technical provisions of this code optional.

Decisions on any appeals of the provisions of optional permits which are adopted by local ordinance shall be issued by the local governing body having jurisdiction.

2. Construction permit. A construction permit allows the applicant to install or modify systems and equipment for which a permit is required by Section 105.7.

105.2.3 Time limitation of application. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

105.3.1 Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

105.4 Construction documents. Construction documents shall be in accordance with this section. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

105.6.1 Aerosol products. Optional Permit. An operational permit is required to manufacture, store or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.

105.6.2 Amusement buildings. Mandatory Permit. An operational permit is required to operate a special amusement building.

105.6.3 Aviation facilities. Optional Permit. An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles. Additional permits required by other sections of this code include, but are not limited to, hot work, hazardous materials and flammable or combustible finishes.

105.6.4 Carnivals and fairs. Mandatory Permit. An operational permit is required to conduct a carnival or fair.

105.6.5 Cellulose nitrate film. Optional Permit. An operational permit is required to store, handle or use cellulose nitrate film in a Group A occupancy.

105.6.6 Combustible dust-producing operations. Mandatory Permit. An operational permit 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.

105.6.7 Combustible fibers. Optional Permit. An operational permit is required for the storage and handling of combustible fibers in quantities greater than 100 cubic feet (2.8 m³).

Exception: A permit is not required for agricultural storage.

105.6.8 Compressed gases. Optional Permit. An operational permit is required for the storage, use or handling at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed in Table 105.6.8.

Exception: Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.

105.6.9 Covered mall buildings. Mandatory Permit. An operational permit is required for:

1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.
2. The display of liquid- or gas-fired equipment in the mall.
3. The use of open-flame or flame-producing equipment in the mall.

105.6.10 Cryogenic fluids. Optional Permit. An operational permit is required to produce, store, transport on site, use, handle or dispense cryogenic fluids in excess of the amounts listed in Table

105.6.10.

Exception: Permits are not required for vehicles equipped for and using cryogenic fluids as a fuel for propelling the vehicle or for refrigerating the lading.

105.6.11 Cutting and welding. Optional Permit. An operational permit is required to conduct cutting or welding operations within the jurisdiction.

105.6.12 Dry cleaning plants. Optional Permit. An operational permit is required to engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in exist existing dry cleaning equipment.

105.6.13 Exhibits and trade shows. Mandatory Permit. An operational permit is required to operate exhibits and trade shows.

105.6.14 Explosives. Mandatory Permit. An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of explosives, explosive materials, fireworks or pyrotechnic special effects within the scope of Chapter 33.

Exceptions:

1. Storage in Group R-3 occupancies of smokeless propellant, black powder and small arms primers for personal use, not for resale and in accordance with Section 3306.

2. Fireworks allowed by North Carolina General Statute 14-414.

105.6.15 Fire hydrants and valves. Optional Permit. An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes which are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public.

Exception: A permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.

105.6.16 Flammable and combustible liquids. An operational permit is required:

1. **Optional Permit.** To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.
2. **Optional Permit.** To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
 - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the code official, would cause an unsafe condition.
 - 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. **Optional Permit.** To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment.
4. **Optional Permit.** To remove Class I or Class II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
5. **Mandatory Permit.** To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
6. **Mandatory Permit.** To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.
7. **Mandatory Permit.** To change the type of contents stored in a flammable or combustible liquid tank to a material which poses a greater hazard than that for which the tank was designed and

constructed.

8. **Mandatory Permit.** To manufacture, process, blend or refine flammable or combustible liquids.
9. **Mandatory Permit.** To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments.
10. **Mandatory Permit.** To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments.

105.6.17 Floor finishing. Optional Permit. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m²) using Class I or Class II liquids.

105.6.18 Fruit and crop ripening. Optional Permit. An operational permit is required to operate a fruit-, or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.

105.6.19 Fumigation and thermal insecticidal fogging. Mandatory Permit. An operational permit is required to operate a business of fumigation or thermal insecticidal fogging and to maintain a room, vault or chamber in which a toxic or flammable fumigant is used.

105.6.20 Hazardous materials. Optional Permit. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed in Table 105.6.20.

105.6.21 HPM facilities. Optional Permit. An operational permit is required to store, handle or use hazardous production materials.

105.6.22 High-piled storage. Optional Permit. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m²).

105.6.23 Hot work operations. Optional Permit. An operational permit is required for hot work including, but not limited to:

1. Public exhibitions and demonstrations where hot work is conducted.
2. Use of portable hot work equipment inside a structure.

Exception: Work that is conducted under a construction permit.

3. Fixed-site hot work equipment such as welding booths.
4. Hot work conducted within a hazardous fire area.
5. Application of roof coverings with the use of an open-flame device.
6. When approved, the fire code official shall issue a permit to carry out a Hot Work Program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in Chapter 26. These permits shall be issued only to their employees or hot work operations under their supervision.

105.6.24 Industrial ovens. Optional Permit. An operational permit is required for operation of industrial ovens regulated by Chapter 21.

105.6.25 Lumber yards and woodworking plants. Optional Permit. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft³) (236 m³).

105.6.26 Liquid- or gas-fueled vehicles or equipment in assembly buildings. Mandatory Permit. An operational permit is required to display, operate or demonstrate liquid- or gas-fueled vehicles or equipment in assembly buildings.

105.6.27 LP-gas. A permit may be required and issued by the NC Department of Agriculture for LP-gas equipment used for storage, handling, transporting, and utilizing liquefied petroleum gas for fuel purposes.

105.6.28 Magnesium. Optional Permit. An operational permit is required to melt, cast, heat treat or grind more than 10 pounds (4.54 kg) of magnesium.

105.6.29 Miscellaneous combustible storage. Optional Permit. An operational permit is required to store in any building or upon any premises in excess of 2,500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.

105.6.30 Open burning. Optional Permit. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to.

Exception: Recreational fires.

105.6.31 Open flames and torches. Optional Permit. An operational permit is required to remove paint with a torch; or to use a torch or open-flame device in a hazardous fire area.

105.6.32 Open flames and candles. Optional Permit. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.

105.6.33 Organic coatings. Optional Permit. An operational permit is required for any organic-coating manufacturing operation producing more than 1 gallon (4 L) of an organic coating in one day.

105.6.34 Places of assembly. Optional Permit. An operational permit is required to operate a place of assembly.

105.6.35 Private fire hydrants. Mandatory Permit. An operational permit is required for the removal from service, use or operation of private fire hydrants.

Exception: A permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.

105.6.36 Pyrotechnic special effects material. Mandatory Permit. An operational permit is required for use and handling of pyrotechnic special effects material.

105.6.37 Pyroxylin plastics. Optional Permit. An operational permit is required for storage or handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.

105.6.38 Refrigeration equipment. Optional Permit. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.

105.6.39 Repair garages and motor fuel-dispensing facilities. Optional Permit. An operational permit is required for operation of repair garages and automotive, marine and fleet motor fuel-dispensing facilities.

105.6.40 Rooftop heliports. Optional Permit. An operational permit is required for the operation of a rooftop heliport.

105.6.41 Spraying or dipping. Mandatory Permit. An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 15.

105.6.42 Storage of scrap tires and tire byproducts. Optional Permit. An operational permit is required to establish, conduct or maintain storage of scrap tires and tire byproducts that exceeds

2,500 cubic feet (71 m³) of total volume of scrap tires and for indoor storage of tires and tire byproducts.

105.6.43 Temporary membrane structures, tents and canopies. Mandatory Permit. An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 200 square feet (19 m²), or a canopy in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies open on all sides which comply with all of the following:
 - 2.1. Individual canopies having a maximum size of 700 square feet (65 m²).
 - 2.2. The aggregate area of multiple canopies placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 2.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

105.6.44 Tire-rebuilding plants. Optional Permit. An operational permit is required for the operation and maintenance of a tire-rebuilding plant.

105.6.45 Waste handling. Optional Permit. An operational permit is required for the operation of wrecking yards, junk yards and waste material-handling facilities.

105.6.46 Wood products. Optional Permit. An operational permit is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m³).

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.13. See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes for general information concerning construction permits.

105.7.9 LP-gas. A construction permit is required for installation of or modification to an LP-gas system may be required and approved by the NC Department of Agriculture.

SECTION 106 INSPECTION SCHEDULES

In order to preserve and to protect public health and safety, and to satisfy the requirements of General Statute 153A- 364 and General Statute 160A-424, political subdivisions assuming inspection duties, as set out in General Statute 153A-351 and General Statute 160A-411, shall have a periodic inspection schedule for the purpose of identifying activities and conditions in buildings, structures, and premises that pose dangers of fire, explosion, or related hazards. Such inspection schedule shall be approved by the local governing body and shall be submitted to the Division of Engineering of the Department of Insurance. In no case may inspections be conducted less frequently than described in the schedule below:

<u>Once every year</u>	<u>Hazardous, Institutional, High-Rise, Assembly except those noted below, and Residential except one- and two- family dwellings and only interior common areas of dwelling units of multi-family occupancies.</u>
<u>Once every two years</u>	<u>Industrial and Educational (Except public schools)</u>
<u>Once every three years</u>	<u>Assembly occupancies with an occupant load less than 100, Business, Mercantile, Storage, Churches, Synagogues, and miscellaneous Group U occupancies.</u>

Frequency rates for inspections of occupancies as mandated by the NC General Statutes shall supersede this schedule. Nothing in this section is intended to prevent a jurisdiction from conducting more frequent inspections than the schedule listed above or the schedule filed with the Engineering Division of the NC Department of Insurance.

On unattended or abandoned structures, the Fire Official shall affix a letter on the premises in a conspicuous place at or near the entrance to such premises requesting an inspection in accordance with Section 107 of this Code. This order of notice shall be mailed by registered or certified mail, with return receipt requested, to the last known address of the owner, occupant, or both. If the owner, occupant or both shall fail to respond to said notice within ten (10) calendar days, these actions by the Fire Official shall be deemed to constitute an inspection in accordance with this section.

Approvals. Approval as the result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel provisions of this code or of other ordinances of the jurisdiction shall not be valid.

SECTION 108 BOARD OF APPEALS

See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

SECTION 109 VIOLATIONS

For violations of the North Carolina Fire Prevention Code or a local Fire Prevention Code that has received prior approval of the Building Code Council, either the local Fire Official or the State Commissioner of Insurance or other State Official with responsibility under General Statute 143-139 may, in addition to other remedies, institute any appropriate action or proceedings, including civil remedies set out in General Statute 60A-175 or General Statute 153A-123, that have been adopted as ordinances within that jurisdiction.

SECTION 111 STOP WORK ORDER

See the provisions of the North Carolina Administrative Code and Policies and applicable North Carolina General Statutes.

SECTION 112 **MAINTAINING A FIRE HAZARD**

112.1 Fire Hazard. No person shall knowingly maintain a fire hazard.

SECTION 113 **LOCAL GOVERNMENT MODIFICATION**

113.1 General. General Statute 143-138 (e) allows local governments to regulate activities and conditions that pose dangers of fire, explosion or related hazards. Any regulation adopted by local ordinance shall not conflict with the State Building Code and must be submitted and approved by the Building Code Council before it becomes effective. The Council has adopted the policy not to print all local modifications in the Statewide Fire Prevention Code, but to list the local government and the date the modification was approved. Copies of the Council minutes and the approved modification may be obtained from the local government or from the North Carolina Department of Insurance website.

113.2 Local government modification approved by the Building Code Council. A list of jurisdictions may be found at www.ncbuildingcodes.com.

CHAPTER 2

DEFINITIONS

APPROVED. Acceptable to the fire code official for compliance with the provisions of the applicable Code or referenced Standard.

FIRE HAZARD. Any thing or act which increases or may cause an increase of the hazard or menace of fire to a greater degree than that customarily recognized as normal by persons in the public service regularly engaged in preventing, suppressing or extinguishing fire; or which may obstruct, delay, hinder or interfere with the operations of the Fire Department or the egress of occupants in the event of fire.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. Design by a Registered Design Professional is not required where exempt under the registration or licensure laws.

OCCUPANCY CLASSIFICATION.

[B] Residential Group R.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

Adult facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Child care facilities that provide accommodations for eight or fewer persons with no more than five preschool for less than 24 hours.

Congregate living facilities with 16 or fewer persons.

Adult and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

CHAPTER 3

GENERAL PRECAUTIONS AGAINST FIRE

There are no proposed NC amendments for this Chapter.

CHAPTER 4

EMERGENCY PLANNING AND PREPAREDNESS

There are no proposed NC amendments for this Chapter.

CHAPTER 5

FIRE SERVICE FEATURES

There are no proposed NC amendments for this Chapter.

CHAPTER 6

BUILDING SERVICES AND SYSTEMS

603.5.3 Special day care provisions. In adult and child day care facilities masonry fireplaces, listed fuel burning space heaters, fireplaces and floor furnaces which are provided with a protective screen attached securely with substantial supports that will prevent accidental burning will be allowed. Unvented fuel burning heaters and portable electric heaters of all types are prohibited.

604.5 Operational inspection and testing of emergency lighting unit equipment. Emergency lighting unit equipment, including means of egress illumination and exit signs, not covered by NFPA110 and NFPA111 shall be inspected and tested in accordance with this section.

604.5.1 Exit sign illumination inspection. Internally illuminated exit signs with secondary battery power shall be visually inspected for operation of the primary and secondary sources of illumination at intervals not to exceed 30 days.

604.5.2 Functional test. A functional test shall be conducted on every required emergency lighting unit equipment at 30-day intervals for not less than 30 seconds.

Exception: Self-testing/self-diagnostic, battery-operated emergency lighting unit equipment that automatically performs a test for not less than 30 seconds and diagnostic routine not less than once every 30 days and indicates failures by a status indicator shall be exempt from the 30-day functional test, provided that a visual inspection is performed at 30-day intervals.

604.5.3 Annual test. An annual test shall be conducted on every required battery-powered emergency lighting unit equipment for not less than 1½ hours. Equipment shall be fully operational for the duration of the test.

604.5.4 Written record. Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

CHAPTER 7

FIRE-RESISTANCE-RATED CONSTRUCTION

(B)703.5 Identification. Walls and partitions required to have protected openings (fire walls, fire barriers, fire partitions, smoke barriers, smoke partitions) shall be permanently identified with signs or stenciling. Such identification shall be above any ceiling or other concealed spaces. Example wording:

2-HOUR FIRE BARRIER, PROTECT ALL OPENINGS.

SECTION 704

FLOOR OPENINGS AND SHAFTS

704.1 Enclosures. Deleted.

TABLE 704.1

VERTICAL OPENING PROTECTION REQUIRED

Deleted.

CHAPTER 8

INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

There are no proposed NC amendments for this Chapter.

CHAPTER 9

FIRE PROTECTION SYSTEMS

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.

Exceptions:

1. This requirement shall not apply to assembly occupancies used primarily for worship with fixed seating and part of a separated use.
2. This requirement shall not apply to assembly occupancies used primarily for worship consisting of a single multipurpose room that are not used for exhibition or display and are part of a separated use.
3. The fire area is located on a floor other than the level of exit discharge.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

903.2.5.1 Dry pipe sprinkler system. When dry pipe sprinkler systems are installed, upon activation, a full flow of water shall be delivered to the most remote point of the system in no more than 60 seconds.

903.2.7 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: An automatic sprinkler system is not required in Group R-3 and R-4 adult and child day care facilities.

906.2 General requirements. Portable fire extinguishers shall be selected, installed and maintained in accordance with this section and NFPA 10.

Exceptions:

1. The travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. The use of supervised, listed electronic monitoring device shall be allowed in lieu of 30-day interval inspections, when approved.

907.2.3 Group E. A manual fire alarm system shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. In other than child day care centers, Group E occupancies with an occupant load of less than 50.

2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:

2.1. Interior corridors are protected by smoke detectors with alarm verification.

2.2. Auditoriums, cafeterias, gymnasiums and the like are protected by heat detectors or other approved detection devices.

2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.

2.4. Off-premises monitoring is provided.

2.5. The capability to activate the evacuation signal from a central point is provided.

2.6. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.

3. Manual fire alarm boxes shall not be required in building is equipped throughout with an approved notification appliances will activate on sprinkler provided from a normally occupied location.

Group E occupancies where the automatic sprinkler system, the water flow and manual activation is

907.2.9 Group R-2 and Adult and Child Day

Care in Group R-4.

907.2.9.1 Group R-2. A manual fire alarm system shall be installed in Group R-2 occupancies where:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;

2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or

3. The building contains more than 16 dwelling units or sleeping units.

Exceptions:

1. A fire alarm system is not required in buildings not over two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court or yard.

2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:

2.1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2.2. The notification appliances will activate upon sprinkler flow.

3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1022.6, Exception 4.

907.2.9.2 Adult and Child Day Care in Group R-4. A manual fire alarm system listed for residential use shall be installed in R-4 occupancies used for adult or child day care.

907.10.2 Audible alarms. Audible alarm notification appliances shall be provided and sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupied space within the building. The minimum sound pressure levels shall be: 70 dBA in occupancies in Groups R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 120 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

Exceptions:

1. Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of Group I-2 occupancies.
2. In Group I-2 occupancies and licensed Large Residential Care Facilities where occupants are incapable of evacuating themselves because of age, physical or mental disabilities, or physical restraint, audible notification appliances shall be permitted to meet the Private Mode requirements of NFPA 72 in patient care and treatment areas.

TABLE 910.3

REQUIREMENTS FOR DRAFT CURTAINS AND SMOKE AND HEAT VENTS
(change reference in first column from “903.2.3” to “903.2.2” in 4-places)

TABLE 911.1

EXPLOSION CONTROL REQUIREMENTS
(add footnote “f” to “Flammable gas”)

f. Not including liquefied petroleum gas.

911.5 Liquefied petroleum gas distribution facilities. Liquefied petroleum gas distribution facilities shall comply with Chapter 119, Article 5 of the General Statutes of North Carolina, and the North Carolina Administrative Code, Title 2, Chapter 38, Section 0.700, as enforced by the N. C. Department of Agriculture and Consumer Services through the provisions of NFPA 58.

CHAPTER 10

MEANS OF EGRESS

1008.1.8.3 Locks and Latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint

2. In buildings in occupancy Group A having an occupant load less than 100, Groups B, F, M and S, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 2.1 The locking device is readily distinguishable as locked and provided with a key that cannot be removed when the door is locked from the inside.

(remainder unchanged)

1026.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group E classrooms, Group R as applicable in Section 101.2 and Group I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such opening shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. In other than Group R-3 occupancies as applicable in Section 101.2, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. In other than Group R-3 occupancies as applicable in Section 101.2, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue windows.
5. High-rise buildings in accordance with Section 403.
6. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.
7. Basements without habitable spaces and having no more than 200 square feet (18.6 square meters) in floor area shall not be required to have emergency escape windows.
8. In Group E where the room or space complies with the following:
 - 8.1 Doors open directly to a corridor with exit access in one direction and provide access through adjacent classrooms or directly to a separate smoke compartment with exit access in the other direction, and
 - 8.2 The compartments are separated by smoke barriers having a 1 hour fire resistance rating with self-closing or automatic closing doors, and

8.3 The length of travel to exits along such paths shall not exceed 150 ft. (45 m) and

8.4 Each communicating door shall be identified, and

8.5 No locking device shall be allowed on the communicating doors.

1026.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor. For classrooms serving children Grade 5 and younger, the bottom of the clear opening shall be not more than 32 inches (810 mm) measured from the floor.

**CHAPTER 11
AVIATION FACILITIES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 12
DRY CLEANING**

There are no proposed NC amendments for this Chapter.

**CHAPTER 13
COMBUSTIBLE DUST-PRODUCING OPERATIONS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 14
FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION**

There are no proposed NC amendments for this Chapter.

**CHAPTER 15
FLAMMABLE FINISHES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 16
FRUIT AND CROP RIPENING**

There are no proposed NC amendments for this Chapter.

**CHAPTER 17
FUMIGATION AND THERMAL INSECTICIDAL FOGGING**

There are no proposed NC amendments for this Chapter.

**CHAPTER 18
SEMICONDUCTOR FABRICATION FACILITIES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 19
LUMBER YARDS AND WOODWORKING FACILITIES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 20
MANUFACTURE OF ORGANIC COATINGS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 21
INDUSTRIAL OVENS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 22
MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES**

2206.2.3 Above-ground tanks located outside, above grade. Above-ground tanks shall not be used for the storage of Class I, II or IIIA liquid fuels except as provided by this section.

1. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks and be in accordance with Chapter 34. Such tanks shall be located in accordance with Table 2206.2.3.
2. Above-ground tanks used for above-grade storage of Class II or IIIA liquids are allowed to be protected above-ground tanks or, when approved by the fire code official, other above-ground tanks that comply with Chapter 34. Tank locations shall be in accordance with Table 2206.2.3.
3. Tanks containing fuels shall not exceed 12,000 gallons (45 420 L) in individual capacity or 48,000 gallons (181 680 L) in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet (30 480 mm).
4. Tanks located at farms, construction projects, or rural areas shall comply with Section 3406.2.
5. Fleet Vehicle Service Stations. Aboveground storage tanks, 1,100 gallons or less in capacity, may be used to store Class I liquids at fleet vehicle service stations in accordance with NFPA 30A.

2206.2.3.1 Kerosene storage. The provisions of section 2206.1 shall not prohibit above ground tanks and dispensers for K-1 Kerosene when the following conditions are met:

1. The maximum individual and aggregate tank capacity shall be 660 gallons.

Exception: Individual and aggregate tank capacities up to a maximum of 1000 gallons where tanks are installed in vaults that comply with Section 3404.2.8.

2. Only listed UL 142 tanks with spill control in accordance with NFPA 30 shall be used.

Exception: Listed secondary containment-type tanks provided that:

- (a). An internal emergency shear valve is installed whenever piping connections

are made below the liquid level of the tank; and
(b). Where the interstitial space is enclosed, emergency venting is installed in accordance with NFPA 30.

3. Normal tank venting shall be provided in accordance with Chapter 34.
4. Tanks shall be equipped with emergency venting that will not permit pressures to exceed 2.5 psig.
5. Pumps and dispensers shall be listed.
6. Electrical equipment shall comply with Section 3403.1.
7. Vehicle impact protection shall be provided in accordance with Section 2206.4 where required by the code official.
8. Dispensing devices shall be located at least 20 feet from any dispenser of vehicle fuels, LPG, LNG, or CNG.
9. Tanks and dispensers shall be located at least 5 feet from buildings on the same lot.
10. Tanks and dispensers shall be located at least 20 feet from the nearest side of a public way, and at least 20 feet from any lot line including the opposite side of a public way.
11. Dispensing devices shall be located such that when the hose is fully extended, the nozzle shall not reach within 5 feet of any building opening.
12. Dispensers shall be visible from the attendant's station. Mirrors or video cameras utilized to achieve compliance with this item shall be approved by the code official.
13. Only approved containers shall be filled from these tanks and dispensers. Vehicles shall not be fueled from them.
14. Portable fire extinguishers shall be provided in accordance with Section 2205.5.

[Delete Section 2207 and replace with the following]

2207.1 General. Service stations for LP-gas fuel shall comply with Chapter 119, Article 5 of the General Statutes of North Carolina, and the North Carolina Administrative Code, Title 2, Chapter 38, Section 0.700, as enforced by the NC Department of Agriculture and Consumer Services through the provisions of NFPA 58.

2207.2 Attendants. Motor vehicle fueling operations shall be conducted by qualified attendants or in accordance with Section 2207.3 by persons trained in the proper handling of LP-gas.

2207.3 Private fueling of motor vehicles. Self-service LP-gas dispensing systems, including key, code, and card lock dispensing systems shall not be open to the public and shall be limited to the filling of permanently mounted fuel containers on LP-gas powered vehicles. Self-service LP-gas dispensing systems shall be in accordance with the following:

1. The system shall be provided with an emergency shutoff switch located within 100 feet (30.480 meter) of, but not less than 20 feet (6.096 meters) from dispensers.

2. The owner of the dispensing facility shall provide for the safe operation of the system and the training of the users.

CHAPTER 23

HIGH-PILED COMBUSTIBLE STORAGE

There are no proposed NC amendments for this Chapter.

CHAPTER 24

TENTS, CANOPIES AND OTHER MEMBRANE STRUCTURES

There are no proposed NC amendments for this Chapter.

CHAPTER 25

TIRE REBUILDING AND TIRE STORAGE

There are no proposed NC amendments for this Chapter.

CHAPTER 26

WELDING AND OTHER HOT WORK

There are no proposed NC amendments for this Chapter.

CHAPTER 27

HAZARDOUS MATERIALS – GENERAL PROVISIONS

There are no proposed NC amendments for this Chapter.

CHAPTER 28

AEROSOLS

There are no proposed NC amendments for this Chapter.

CHAPTER 29

COMBUSTIBLE FIBERS

There are no proposed NC amendments for this Chapter.

CHAPTER 30

COMPRESSED GASES

3001.1 Scope. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with this chapter, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purposes of the controls required.

Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 606).
2. Compressed natural gas (CNG) for use as a vehicular fuel shall comply with Chapter 22, NFPA 52 and the *International Fuel Gas Code*.

Cutting and welding gases shall also comply with Chapter 26.

Cryogenic fluids shall also comply with Chapter 32. Liquefied natural gas for use as a vehicular fuel shall also comply with NFPA 57 and NFPA 59A.

Compressed gases classified as hazardous materials shall also comply with Chapter 27 for general requirements and chapters addressing specific hazards, including Chapters 35 (Flammable Gases), 37 (Highly Toxic and Toxic Materials), 40 (Oxidizers) and 41 (Pyrophoric).

LP-Gas shall comply with Chapter 38 and the North Carolina Fuel Gas Code, Chapter 119, Article 5 of the General Statutes of North Carolina and the North Carolina Administrative Code, Title 2 Chapter 38, Section .0700.

CHAPTER 31 CORROSIVE MATERIALS

There are no proposed NC amendments for this Chapter.

CHAPTER 32 CRYOGENIC FLUIDS

There are no proposed NC amendments for this Chapter.

CHAPTER 33 EXPLOSIVES AND FIREWORKS

3301.1 Scope. The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, fireworks and small arms ammunition.

Exceptions:

1. The Armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The possession, storage and use of small arms ammunition when packaged in accordance with DOTn packaging requirements.
4. The possession, storage, and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
6. Special industrial explosive devices which in the aggregate contain less than 50 pounds (23 kg) of explosive materials.
7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOTn packaging regulations.
8. Transportation in accordance with DOTn 49 CFR Parts 100-178.

9. Items preempted by federal regulations.

10. The possession, storage, transportation, and use of explosive materials by companies permitted under the provisions of North Carolina General Statute, Chapter 74, Article 7.

Section 3302

Definitions

Fireworks, 1.4G. (Formerly known as Class C, Common Fireworks.) **North Carolina General Statute 14-414.** The following fireworks are allowed to be sold, used or possessed without a permit:

1. Explosive caps designed to be fired in toy pistols, provided that the explosive mixture of the explosive caps shall not exceed twenty-five hundredths (0.25) of a gram for each cap;
2. Snake and glow worms composed of pressed pellets of a pyrotechnic mixture that produce a large, snake-like ash when burning;
3. Smoke devices consisting of tube or sphere containing a pyrotechnic mixture that produce white or colored smoke;
4. Trick noise makers which produce a small report designed to surprise the user which include:
 - (A) A party popper, which is a small plastic or paper item containing not in excess of 16 milligrams of explosive mixture. A string protruding from the device is pulled to ignite the device, expelling paper streamers and producing a small report.
 - (B) A string popper, which is small tube containing not in excess of 16 milligrams of explosive mixture with a string protruding from both ends. The strings are pulled to ignite the friction-sensitive mixture, producing a small report.
 - (C) A snapper or drop pop, which is a small, paper-wrapped item containing no more than 16 milligrams of explosive mixture coated on small bits of sand. When dropped, the device produces a small report.
5. Wire sparklers consisting of wire or stick coated with nonexplosive mixture that produces a shower of sparks upon ignition. These items must not exceed 100 grams of mixture per item;
6. Other sparkling devices which emit showers of sparks and sometimes a whistling or crackling effect when burning, do not detonate or explode, do not spin, are hand-held or ground-based, cannot propel themselves through the air, and contain not more than 75 grams of chemical compound per tube or not more than a total of 200 grams of chemical compound if multiple tubes are used.

CHAPTER 34

FLAMMABLE AND COMBUSTIBLE LIQUIDS

3404.2.13.1.3 Out of service for 1 year. Underground tanks that have been out of service for a period of 1 year shall be removed from the ground in accordance with Section 3404.2.14 or abandoned in place in accordance with Section 3404.2.13.1.4.

Exception: Underground tanks and connected piping that comply with *NC UST operating permit requirements* for new or upgraded systems may remain out of service indefinitely so long as they remain in compliance with the operation, maintenance, and release detection requirements and are safeguarded in accordance with 3404.2.13.1.2.

**CHAPTER 35
FLAMMABLE GASES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 36
FLAMMABLE SOLIDS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 37
HIGHLY TOXIC AND TOXIC MATERIALS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 38
LIQUEFIED PETROLEUM GASES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 39
ORGANIC PEROXIDES**

There are no proposed NC amendments for this Chapter.

**CHAPTER 40
OXIDIZERS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 41
PYROPHORIC MATERIALS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 42
PYROXYLIN (CELLULOSE NITRATE) PLASTICS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 43
UNSTABLE (REACTIVE) MATERIALS**

There are no proposed NC amendments for this Chapter.

**CHAPTER 44
WATER-REACTIVE SOLIDS AND LIQUIDS**

There are no proposed NC amendments for this Chapter.

CHAPTER 45
REFERENCED STANDARDS
NFPA
664 - 07

APPENDIX A
BOARD OF APPEALS

The provisions contained in this appendix are deleted.

APPENDIX B
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

There are no proposed NC amendments for this Chapter.

APPENDIX C
FIRE HYDRANT LOCATIONS AND DISTRIBUTION

There are no proposed NC amendments for this Chapter.

APPENDIX D
FIRE APPARATUS ACCESS ROADS

There are no proposed NC amendments for this Chapter.

APPENDIX E
HAZARD CATEGORIES

There are no proposed NC amendments for this Chapter.

APPENDIX F
HAZARD RANKING

There are no proposed NC amendments for this Chapter.

APPENDIX G
CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS

There are no proposed NC amendments for this Chapter.

APPENDIX H
TEST REQUIREMENTS FOR FLAME-RETARDANT CHEMICALS USED ON
CHRISTMAS TREES.

(Bring forward 2006 NC Fire Code Appendix H.)