

# CHAPTER 1 ADMINISTRATION

## SECTION 101 GENERAL

**101.1 Title.** These regulations shall be known as the *Fire Code of North Carolina*, hereinafter referred to as “this code.”

**101.2 Scope.** This code establishes regulations affecting or relating to structures, processes, premises and safeguards regarding:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices;
2. Conditions hazardous to life, property or public welfare in the occupancy of structures or premises;
3. Fire hazards in the structure or on the premises from occupancy or operation;
4. Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.

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

**101.3 Intent.** The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises and to provide safety to fire fighters and emergency responders during emergency operations.

**101.4 Severability.** If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

**101.5 Validity.** In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

## SECTION 102 APPLICABILITY

**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 requires certain safety to life requirements for existing buildings, those requirements shall apply.

4. Existing structures, facilities and conditions which, in the opinion of the code official, constitute distinct hazard to life or property.

**102.2 Administrative, operational and maintenance provisions.** The administrative, operational and maintenance provisions of this code shall apply to:

1. Conditions and operations arising after the adoption of this code.
2. Existing conditions and operations.

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

**102.4 Application of building code.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**102.5 Historic buildings.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**102.6 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 45 and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

**102.7 Subjects not regulated by this code.** Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards, as approved, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the fire code official to determine compliance with codes or standards for those activities or installations within the code official's jurisdiction or responsibility.

**102.8 Matters not provided for.** Requirements that are essential for the public safety of an existing or proposed

activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code shall be determined by the fire code official.

**102.9 Conflicting provisions.** Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

**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. *Buildings for the use of any farmer or his immediate family located outside the building regulation jurisdiction of any municipality when use of the building does not involve the health and safety of the public. If the operation of such can be considered a business endeavor, it shall meet the provisions of the technical codes.*

**Exception:** *All buildings used for sleeping purposes shall conform to the provisions of the technical codes. All electric wiring of houses, buildings, or structures shall conform to the provisions of the North Carolina Electrical Code.*

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.*

## **SECTION 103 DEPARTMENT OF FIRE PREVENTION**

**103.1 General.** The department of fire prevention is established within the jurisdiction under the direction of the fire code official. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.

**103.2 Appointment.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**103.3 Deputies.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**103.4 Liability.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**103.4.1 Legal defense.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes*

## **SECTION 104 GENERAL AUTHORITY AND RESPONSIBILITIES**

**104.1 General.** The fire code official is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.

**104.2 Applications and permits.** The fire code official is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

**104.3 Right of entry** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**104.3.1 Warrant.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**104.4 Identification.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**104.5 Notices and orders.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**104.6 Official records.** *See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.*

**104.7 Approved materials and equipment.** All materials, equipment and devices approved by the fire code official shall be constructed and installed in accordance with such approval.

**104.7.1 Material and equipment reuse.** Materials, equipment and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested and placed in good and proper working condition and approved.

**104.7.2 Technical assistance.** To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to

inspection by the fire code official, the fire code official is authorized to require the owner or agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The fire code official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

**104.8 Modifications.** Whenever there are practical difficulties involved in carrying out the provisions of this code, the fire code official shall have the authority to grant modifications for individual cases, provided the fire code official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

**104.9 Alternative materials and methods.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**104.10 Fire investigations.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**104.11 Authority at fires and other emergencies.** The fire chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property or any part thereof, shall have the authority to direct such operation as necessary to extinguish or control any fire, perform any rescue operation, investigate the existence of suspected or reported fires, gas leaks or other hazardous conditions or situations, or take any other action necessary in the reasonable performance of duty. In the exercise of such power, the fire chief is authorized to prohibit any person, vehicle, vessel or thing from approaching the scene and is authorized to remove, or cause to be removed or kept away from the scene, any vehicle, vessel or thing which could impede or interfere with the operations of the fire department and, in the judgment of the fire chief, any person not actually and usefully employed in the extinguishing of such fire or in the preservation of property in the vicinity thereof.

**104.11.1 Barricades.** The fire chief or officer of the fire department in charge at the scene of an emergency is authorized to place ropes, guards, barricades or other obstructions across any street, alley, place or private property in the vicinity of such operation so as to prevent accidents or interference with the lawful efforts of the fire department to manage and control the situation and to handle fire apparatus.

**104.11.2 Obstructing operations.** No person shall obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

**104.11.3 Systems and devices.** No person shall render a system or device inoperative during an emergency unless by direction of the fire chief or fire department official in charge of the incident.

## SECTION 105 PERMITS

**105.1 General.** Permits shall be in accordance with Section 105.

**105.1.1 Permits required.** Permits required by this code shall be obtained from the fire code official. Permit fees, if any, shall be paid prior to issuance of the permit. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire code official.

**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 Administration and Enforcement Requirements Code 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.

**105.1.3 Permits for the same location.** When more than one permit is required for the same location, the fire code official is authorized to consolidate such permits into a single permit provided that each provision is listed in the permit.

**105.2 Application.** Application for a permit required by this code shall be made to the fire code official in such form and detail as prescribed by the fire code official. Applications for permits shall be accompanied by such plans as prescribed by the fire code official.

**105.2.1 Refusal to issue permit.** If the application for a permit describes a use that does not conform to the requirements of this code and other pertinent laws and

ordinances, the fire code official shall not issue a permit, but shall return the application to the applicant with the refusal to issue such permit. Such refusal shall, when requested, be in writing and shall contain the reasons for refusal.

**105.2.2 Inspection authorized.** Before a new operational permit is approved, the fire code official is authorized to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational constraints required.

**105.2.3 Time limitation of application.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**105.2.4 Action on application.** The fire code official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the fire code official shall reject such application in writing, stating the reasons therefore. If the fire code official is satisfied that the proposed work or operation conforms to the requirements of this code and laws and ordinances applicable thereto, the fire code official shall issue a permit therefore as soon as practicable.

**105.3 Conditions of a permit.** A permit shall constitute permission to maintain, store or handle materials; or to conduct processes which produce conditions hazardous to life or property; or to install equipment utilized in connection with such activities; or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification in accordance with the provisions of this code where a permit is required by Section 105.6 or 105.7. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code or other applicable regulations or laws of the jurisdiction.

**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.

**105.3.2 Extensions.** A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The fire code official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 90 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

**105.3.3 Occupancy prohibited before approval.** The building or structure shall not be occupied prior to the fire code official issuing a permit that indicates that applicable provisions of this code have been met.

**105.3.4 Conditional permits.** Where permits are required and upon the request of a permit applicant, the fire code official is authorized to issue a conditional permit to

occupy the premises or portion thereof before the entire work or operations on the premises is completed, provided that such portion or portions will be occupied safely prior to full completion or installation of equipment and operations without endangering life or public welfare. The fire code official shall notify the permit applicant in writing of any limitations or restrictions necessary to keep the permit area safe. The holder of a conditional permit shall proceed only to the point for which approval has been given, at the permit holder's own risk and without assurance that approval for the occupancy or the utilization of the entire premises, equipment or operations will be granted.

**105.3.5 Posting the permit.** Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire code official.

**105.3.6 Compliance with code.** The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the fire code official from requiring the correction of errors in the construction documents and other data. Any addition to or alteration of approved construction documents shall be approved in advance by the fire code official, as evidenced by the issuance of a new or amended permit.

**105.3.7 Information on the permit.** The fire code official shall issue all permits required by this code on an approved form furnished for that purpose. The permit shall contain a general description of the operation or occupancy and its location and any other information required by the fire code official. Issued permits shall bear the signature of the fire code official or other approved legal authorization.

**105.4 Construction documents.** See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes.

**105.5 Revocation.** The fire code official is authorized to revoke a permit issued under the provisions of this code when it is found by inspection or otherwise that there has been a false statement or misrepresentation as to the material facts in the application or construction documents on which the permit or approval was based including, but not limited to, any one of the following:

1. The permit is used for a location or establishment other than that for which it was issued.
2. The permit is used for a condition or activity other than that listed in the permit.
3. Conditions and limitations set forth in the permit have been violated.
4. There have been any false statements or misrepresentations as to the material fact in the application for permit or plans submitted or a condition of the permit.

5. The permit is used by a different person or firm than the name for which it was issued.

6. The permittee failed, refused or neglected to comply with orders or notices duly served in accordance with the provisions of this code within the time provided therein.

7. The permit was issued in error or in violation of an ordinance, regulation or this code.

**105.6 Required operational permits.** The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.47.

**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 Battery systems. Optional Permit.** A permit is required to install stationary lead-acid battery systems having a liquid capacity of more than 50 gallons (189 L).

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

**105.6.7 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.

**105.6.8 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 m<sup>3</sup>).

**Exception:** A permit is not required for agricultural storage.

**105.6.9 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 105.6.9.

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

**TABLE 105.6.9  
PERMIT AMOUNTS FOR COMPRESSED GASES**

Insert Table

For SI: 1 cubic foot = 0.02832 m<sup>3</sup>.

**105.6.10 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.

**105.6.11 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 105.6.11.

**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.

**TABLE 105.6.11  
PERMIT AMOUNTS FOR CRYOGENIC FLUIDS**

Insert Table

For SI: 1 gallon = 3.785 L.

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

**105.6.13 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 existing dry cleaning equipment.

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

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

**Exceptions:**

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

2. 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.

**105.6.16 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.

**105.6.17 Flammable and combustible liquids.** An operational permit is required *as follows*:

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 under-ground 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.

**105.6.18 Floor finishing. Optional Permit.** An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m<sup>2</sup>) using Class I or Class II liquids.

**105.6.19 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.

**105.6.20 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.

**105.6.21 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 105.6.21.

**TABLE 105.6.21**  
**PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**  
*Insert Table*

For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg.

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

**105.6.23 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 m<sup>2</sup>).

**105.6.24 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.

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

**105.6.26 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 ft<sup>3</sup>) (236 m<sup>3</sup>).

**105.6.27 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.

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

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

**105.6.30 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 m<sup>3</sup>) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.

**105.6.31 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.

**105.6.32 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.

**105.6.33 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.

**105.6.34 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.

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

**105.6.36 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.

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

**105.6.38 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.

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

**105.6.40 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.

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

**105.6.42 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.

**105.6.43 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 m<sup>3</sup>) of total volume of scrap tires and for indoor storage of tires and tire byproducts.

**105.6.44 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 m<sup>2</sup>), or a canopy in excess of 400 square feet (37 m<sup>2</sup>).

**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 m<sup>2</sup>).
  - 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 m<sup>2</sup>) total.

2.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

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

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

**105.6.47 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 105.7.12. See the provisions of the North Carolina Administration and Enforcement Requirements Code and applicable North Carolina General Statutes for general information concerning construction permits.

**105.7.1 Automatic fire-extinguishing systems.** A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

**105.7.2 Compressed gases.** When the compressed gases in use or storage exceed the amounts listed in Table 105.6.9, a construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a compressed gas system.

**Exceptions:**

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

The permit applicant shall apply for approval to close storage, use or handling facilities at least 30 days prior to the termination of the storage, use or handling of compressed or liquefied gases. Such application shall include any change or alteration of the facility closure plan filed pursuant to Section 2701.6.3. The 30-day period is not applicable when approved based on special circumstances requiring such waiver.

**105.7.3 Fire alarm and detection systems and related equipment.** A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

**105.7.4 Fire pumps and related equipment.** A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers, and generators. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

**105.7.5 Flammable and combustible liquids.** A construction permit is required:

1. To repair or modify a pipeline for the transportation of flammable or combustible liquids.
2. To install, construct or alter 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.
3. To install, alter, remove, abandon or otherwise dispose of a flammable or combustible liquid tank.

**105.7.6 Hazardous materials.** A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 27 when the hazardous materials in use or storage exceed the amounts listed in Table 105.6.21.

**Exceptions:**

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

**105.7.7 Industrial ovens.** A construction permit is required for installation of industrial ovens covered by Chapter 21.

**Exceptions:**

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

**105.7.8 LP-gas.** A construction permit may be required for installation of or modification to an LP-gas system, as approved by the NC Department of Agriculture.

**105.7.9 Private fire hydrants.** A construction permit is required for the installation or modification of private fire hydrants.

**105.7.10 Spraying or dipping.** A construction permit is required to install or modify a spray room, dip tank or booth.

**105.7.11 Standpipe systems.**

A construction permit is required for the installation, modification, or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

**105.7.12 Temporary membrane structures, tents and canopies.** A construction permit is required to erect 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. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
3. Fabric canopies and awnings open on all sides which comply with all of the following:

3.1. Individual canopies shall have a maximum size of 700 square feet (65 m2).

3.2. 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.

3.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.

### **SECTION 106 INSPECTIONS 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 and 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.

### **SECTION 107 MAINTENANCE**

**107.1 Maintenance of safeguards.** Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this code, or otherwise installed, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with this code and applicable referenced standards.

**107.2 Testing and operation.** Equipment requiring periodic testing or operation to ensure maintenance shall be tested or operated as specified in this code.

**107.2.1 Test and inspection records.** Required test and inspection records shall be available to the fire code official at all times or such records as the fire code official designates shall be filed with the fire code official.

**107.2.2 Re-inspection and testing.** Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the fire code official for inspection and testing.

**107.3 Supervision.** Maintenance and testing shall be under the supervision of a responsible person who shall ensure that such maintenance and testing are conducted at specified intervals in accordance with this code.

**107.4 Rendering equipment inoperable.** Portable or fixed fire-extinguishing systems or devices and fire-warning systems shall not be rendered inoperative or inaccessible except as necessary during emergencies, maintenance, repairs, alterations, drills or prescribed testing.

**107.5 Owner/occupant responsibility.** Correction and abatement of violations of this code shall be the responsibility of the owner. If an occupant creates, or allows to be created, hazardous conditions in violation of this code, the occupant shall be held responsible for the abatement of such hazardous conditions.

**107.6 Overcrowding.** Overcrowding or admittance of any person beyond the approved capacity of a building or a portion thereof shall not be allowed. The fire code official, upon finding any overcrowding conditions or obstructions in aisles, passageways or other means of egress, or upon finding any condition which constitutes a life safety hazard, shall be authorized to cause the event to be stopped until such condition or obstruction is corrected.

**SECTION 108  
BOARD OF APPEALS**

See the provisions of the North Carolina Administration and Enforcement Requirements Code 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 110  
UNSAFE BUILDINGS**

**110.1 General.** If during the inspection of a premises, a building or structure or any building system, in whole or in part, constitutes a clear and inimical threat to human life, safety or health, the fire code official shall issue such notice or orders to remove or remedy the conditions as shall be deemed necessary in accordance with this section and shall refer the building to the building department for any repairs, alterations, remodeling, removing or demolition required.

**110.1.1 Unsafe conditions.** Structures or existing equipment that are or hereafter become unsafe or deficient because of inadequate means of egress or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. A vacant structure which is not secured against unauthorized entry as required by Section 311 shall be deemed unsafe.

**110.1.2 Structural hazards.** When an apparent structural hazard is caused by the faulty installation, operation or malfunction of any of the items or devices governed by this code, the fire code official shall immediately notify the building code official in accordance with Section 110.1.

**110.2 Evacuation.** The fire code official or the fire department official in charge of an incident shall be authorized to order the immediate evacuation of any occupied building deemed unsafe when such building has hazardous conditions that present imminent danger to building occupants. Persons so notified shall immediately leave the structure or premises and shall not enter or reenter until authorized to do so by the fire code official or the fire department official in charge of the incident.

**110.3 Summary abatement.** Where conditions exist that are deemed hazardous to life and property, the fire code official or fire department official in charge of the incident is authorized to abate summarily such hazardous conditions that are in violation of this code.

**110.4 Abatement.** The owner, operator, or occupant of a building or premises deemed unsafe by the fire code official shall abate or cause to be abated or corrected such

unsafe conditions either by repair, rehabilitation, demolition or other approved corrective action.

**SECTION 111  
STOP WORK ORDER**

See the provisions of the North Carolina Administration and Enforcement Requirements Code 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 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 N. C. Department of Insurance. Copies obtained from the Department of Insurance will \$.50 per sheet.

**113.2 Local government modification approved by the Building Code Council.**

## Chapter 2 – 2006 Amendments

### SECTION 202 GENERAL DEFINITIONS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**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.*

## Chapter 3 – 2006 Amendments

### GENERAL PRECAUTIONS AGAINST FIRE

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**304.1.2 Vegetation.** Weeds grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. ~~Vegetation clearance requirements in urban wildland interface areas shall be in accordance with the *International Urban/Wildland Interface Code*.~~

## **CHAPTER 4 – 2006 AMENDMENTS**

### **EMERGENCY PLANNING AND PREPAREDNESS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no amendment(s):**

## **Chapter 5 – 2006 Amendments**

### **FIRE SERVICE FEATURES**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**503.6 Security gates.** The installation of security gates across a fire apparatus access road shall be approved by the fire code official. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times.

**CHAPTER 6**  
**BUILDING SERVICES AND SERVICES**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**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 – 2006 AMENDMENTS**

**FIRE-RESISTANCE-RATED CONSTRUCTION**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 8**  
**INTERIOR FINISH, DECORATIVE MATERIAL AND FURNISHINGS**

**Delete Chapter 8 from the 2003 IFC with the 2004 Supplement and replace with the following:**

**SECTION 801**  
**GENERAL**

**801.1 Scope.** The provisions of this chapter shall govern interior finish, interior trim, furniture, furnishings, decorative materials and decorative vegetation in buildings. Section 803 shall be applicable to existing buildings. Sections 804 through 808 shall be applicable to new and existing buildings.

**SECTION 802**  
**DEFINITIONS**

**802.1 Terms defined in Chapter 2.** Words and terms used in this chapter and defined in Chapter 2 shall have the meanings ascribed to them as defined therein.

**SECTION 803**  
**INTERIOR WALL AND CEILING FINISH**  
**AND INTERIOR WALL AND CEILING**  
**TRIM IN EXISTING BUILDINGS**

**803.1 General.** The provisions of this section shall limit the allowable flame spread and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

**Exceptions:**

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of buildings of Type IV construction in accordance with the *International Building Code* shall not be subject to interior finish requirements.

**803.1.1 Classification in accordance with ASTM E 84.** Interior finish materials shall be grouped in the following classes in accordance with their flame spread index and smoke developed index when tested in accordance with ASTM E 84.

Class A: flame spread index 0-25; smoke developed index 0-450.

Class B: flame spread index 26-75; smoke developed index 0-450.

Class C: flame spread index 76-200; smoke developed index 0-450.

**803.1.2 Classification in accordance with NFPA 286.** Interior wall or ceiling finishes, other than textiles, shall be permitted to be tested in accordance with NFPA 286. Finishes tested in accordance with NFPA 286 shall comply with Section 803.1.2.1. Interior wall and ceiling finish materials, other than textiles, tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 is required.

**803.1.2.1 Acceptance criteria for interior finish materials** Tested to NFPA 286.

During the 40 kW exposure, the interior finish shall comply with item 1. During the 160 kW exposure, the interior finish shall comply with item 2. During the entire test, the interior finish shall comply with item 3.

1. During the 40 kW exposure, flames shall not spread to the ceiling.
2. During the 160 kW exposure, the interior finish shall comply with the following:
  - a. Flame shall not spread to the outer extremity of the sample on any wall or ceiling.
  - b. Flashover, as defined in NFPA 286, shall not occur.
3. The total smoke released throughout the NFPA 286 test shall not exceed 1000 m<sup>2</sup>.

**803.2 Stability.** Interior finish materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subjected to room temperatures of 200°F (93°C) for not less than 30 minutes.

**803.3 Interior finish requirements based on group.** Interior wall and ceiling finish shall have a flame spread index not greater than that specified in Table 803.3 for the group and location designated.

**Table 803.3  
INTERIOR WALL AND CEILING FINISH  
REQUIREMENTS BY OCCUPANCY<sup>k</sup>**

GROUP	SPRINKLERED <sup>l</sup>			UNSPRINKLERED		
	Vertical exits and exit passageways <sup>a, b</sup>	Exit access corridors and other exitways	Rooms and enclosed spaces <sup>c</sup>	Vertical exits and exit passageways <sup>a, b</sup>	Exit access corridors and other exitways	Rooms and enclosed spaces <sup>c</sup>
A-1 & A-2	B	B	C	A	A <sup>d</sup>	B <sup>e</sup>
A-3 <sup>f</sup> , A-4, A-5	B	B	C	A	A <sup>d</sup>	C

B, E, M, R-1, R-4	B	C	C	A	B	C
F	C	C	C	B	C	C
H	B	B	C <sup>g</sup>	A	A	B
I-1	B	C	C	A	B	B
I-2	B	B	B <sup>h,i</sup>	A	A	B
I-3	A	A <sup>j</sup>	C	A	A	B
I-4	B	B	B <sup>h,i</sup>	A	A	B
R-2	C	C	C	B	B	C
R-3	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For **SI**: 1 inch = 25.4 mm, 1 square foot = 0.0929 m<sup>2</sup>.

- a. Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.3 of the *International Building Code*.
- b. In vertical exits of buildings less than three stories in height of other than Group I-3, Class B interior finish for unsprinklered buildings and Class C for sprinklered buildings shall be permitted.
- c. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered as enclosing spaces and the rooms or spaces on both sides shall be considered as one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
- d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall not be less than Class B.
- e. Class C interior finish materials shall be permitted in Group A occupancies with an occupant load of 300 persons or less.
- f. For churches and places of worship, wood used for ornamental purposes, trusses, paneling, or chancel furnishing shall be permitted.
- g. Class B required where building exceeds two stories.
- h. Class C interior finish materials shall be permitted in administrative spaces.
- i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
- j. Class B materials shall be permitted as wainscotting extending not more than 48 inches above the finished floor in exit access corridors.
- k. Finish materials as provided for in other sections of this code.
- l. Applies when the vertical exits, exit passageways, exit access corridors or exitways, or rooms and spaces are protected by a sprinkler system installed in accordance with Section [903.3.1.1](#) or [903.3.1.2](#).

**803.4 Fire-retardant coatings.** The required flame spread index or smoke developed index of surfaces in existing buildings shall be permitted to be achieved by application of

approved fire-retardant coatings, paints or solutions to surfaces having a flame spread index exceeding that permitted. Such applications shall comply with NFPA 703 and the required fire-retardant properties shall be maintained or renewed in accordance with the manufacturer's instructions.

**803.5 Textiles.** Where used as interior wall or ceiling finish materials, textiles, including materials having woven or nonwoven, napped, tufted, looped or similar surface, shall comply with the requirements of this section.

**803.5.1 Textile wall coverings.** Textile wall coverings shall have a class A flame spread index in accordance with ASTM E 84 and be protected by automatic sprinklers installed in accordance with Sections 903.3.1.1 or 903.3.1.2 or the covering shall meet the criteria of Sections 803.5.1.1 or 803.5.1.2 when tested in the manner intended for use in accordance with NFPA 265 using the product mounting system, including adhesive.

**803.5.1.1 Method A test protocol.** During the method A protocol, flame shall not spread to the ceiling during the 40 kW exposure. During the 150 kW exposure, the textile wall covering shall comply with all of the following:

1. Flame shall not spread to the outer extremity of the sample on the 8 foot by 12 foot (2.4 m by 3.6 m) wall.
2. The specimen shall not burn to the outer extremity of the 2-foot (610 mm) wide samples mounted in the corner of the room.
3. Burning droplets deemed capable of igniting textile wall coverings or that burn for 30 seconds or more shall not form.
4. Flashover, as defined in NFPA 265, shall not occur.
5. The maximum net instantaneous peak heat release rate, determined by subtracting the burner output from the maximum heat release rate, does not exceed 300 kW.

**803.5.1.2 Method B test protocol.** During the Method B protocol, flames shall not spread to the ceiling at any time during the 40 kW exposure. During the 150 kW exposure, the textile wall covering shall comply with the following:

1. Flame shall not spread to the outer extremities of the samples on the 8 foot by 12 foot (203 mm by 305 mm) walls.
2. Flashover, as defined in NFPA 265, shall not occur.

**803.6 Expanded vinyl wall or ceiling coverings.** Expanded vinyl wall or ceiling coverings shall comply either with the requirements of Section 803.6.1 or with the requirements of Section 803.6.2.

**803.6.1 General.** Expanded vinyl wall or ceiling coverings shall comply with the requirements of Section 803.1.2. Expanded vinyl wall or ceiling coverings complying with Section 803.1.2 shall not be required to comply with Section 803.1.1.

**803.6.2 Compliance alternative.** Expanded vinyl wall or ceiling coverings shall be permitted to comply with the requirements for textile wall or ceiling coverings as shown in Section 803.5.

**803.7 Foamed plastic materials.** Foamed plastic materials shall not be used as interior wall and ceiling finish unless specifically permitted by Section 803.7.1 or by Section 803.7.2. Foamed plastic materials shall not be used as interior trim unless specifically permitted by Section 803.7.3.

**803.7.1 Combustibility characteristics.** Foamed plastic materials shall be permitted on the basis of fire tests that substantiate their combustibility characteristics for the use intended under actual fire conditions, as indicated in Section 2603.8 of the *International Building Code*. This section shall apply both to exposed foam plastics and to foam plastics used in conjunction with a textile or vinyl facing or cover.

**803.7.2 Thermal barrier.** Foamed plastic material shall be permitted if it is separated from the interior of the building by a thermal barrier in accordance with Section 2603.4 of the *International Building Code*.

**803.7.3 Trim.** Foam plastic shall be permitted for trim not in excess of 10 percent of the wall or ceiling area, provided such trim is not less than 20 pounds per cubic foot (320 kg/m<sup>3</sup>) in density, is limited to 0.5 inch (12.7 mm) in thickness and 8 inches (203 mm) in width, and exhibits a flame spread index not exceeding 75 when tested in accordance with ASTM E 84. The smoke developed index shall not be limited.

## **SECTION 804 INTERIOR WALL AND CEILING TRIM IN NEW AND EXISTING BUILDINGS**

**804.1 Interior trim.** Material, other than foam plastic, used as interior trim shall have a minimum Class C, in terms of flame spread index and smoke-developed index, when tested in accordance with ASTM E 84, as described in Section 803.1.1. Combustible trim, excluding handrails and guardrails, shall not exceed 10 percent of the aggregate wall or ceiling area in which it is located.

**804.2 Foam plastic.** Foam plastic used as interior trim shall comply with Sections 804.2.1 through 804.2.4.

**804.2.1 Density.** The minimum density of the interior trim shall be 20 pounds per cubic foot (320 kg/m<sup>3</sup>).

**804.2.2 Thickness.** The maximum thickness of the interior trim shall be 0.5 inch (12.7 mm) and the maximum width shall be 8 inches (203 mm).

**804.2.3 Area limitation.** The interior trim shall not constitute more than 10 percent of the aggregate wall and ceiling area of a room or space.

**804.2.4 Flame spread.** The flame spread index shall not exceed 75 where tested in accordance with ASTM E 84. The smoke-developed index shall not be limited.

**SECTION 805  
UPHOLSTERED FURNITURE AND  
MATTRESSES IN NEW AND EXISTING BUILDINGS**

**805.1 Group I-2, nursing homes and hospitals.** The requirements in Sections 805.1.1 through 805.1.2.3 shall apply to nursing homes and hospitals classified in Group I-2.

**805.1.1 Upholstered furniture.** Newly introduced upholstered furniture shall meet the requirements of Sections 805.1.1.1 through 805.1.1.3.

**805.1.1.1 Ignition by cigarettes.** Newly introduced upholstered furniture shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with one of the following: (a) mocked-up composites of the upholstered furniture shall have a char length not exceeding 1.5 inches (38 mm) when tested in accordance with NFPA 261 or (b) the components of the upholstered furniture shall meet the requirements for Class I when tested in accordance with NFPA 260.

**Exceptions:**

1. Upholstered furniture belonging to the patient in sleeping rooms of nursing homes (Group I-2), provided that a smoke detector is installed in such rooms. Battery-powered, single-station smoke alarms shall be permitted.
2. Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.1.1.2 Heat release rate.** Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.1.1.3 Identification.** Upholstered furniture shall bear the label of an approved agency, confirming compliance with the requirements of Sections 805.1.1.1 and 805.1.1.2.

**805.1.2 Mattresses.** Newly introduced mattresses shall meet the requirements of Sections 805.1.2.1 through 805.1.2.3.

**805.1.2.1 Ignition by cigarettes.** Newly introduced mattresses shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with DOC 16 CFR Part 1632 and shall have a char length not exceeding 2.0 inches (51 mm).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.1.2.2 Heat release rate.** Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590, as follows.

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.1.2.3 Identification.** Mattresses shall bear the label of an approved agency, confirming compliance with the requirements of Sections 805.1.2.1 and 805.1.2.2.

**805.2 Group I-1, board and care facilities.** The requirements in Sections 805.2.1 through 805.2.2 shall apply to board and care facilities classified in Group I-1.

**805.2.1 Upholstered furniture.** Newly introduced upholstered furniture shall meet the requirements of Sections 805.2.1.1 through 805.2.1.3.

**805.2.1.1 Ignition by Cigarettes** Newly introduced upholstered furniture shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with one of the following: (a) mocked-up composites of the upholstered furniture shall have a char length not exceeding 1.5 inches (38 mm) when tested in accordance with NFPA 261 or (b) the components of the upholstered furniture shall meet the requirements for Class I when tested in accordance with NFPA 260.

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.2.1.2 Upholstered Furniture, Heat Release Rate.** Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537, as follows.

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.2.1.3 Identification.** Upholstered furniture shall bear the label of an approved agency, confirming compliance with the requirements of Section 805.2.1.1.

**805.2.2 Mattresses.** Newly introduced mattresses shall meet the requirements of Sections 805.2.2.1 through 805.2.2.3.

**805.2.2.1 Ignition by cigarettes.** Newly introduced mattresses shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with DOC 16 CFR Part 1632 and shall have a char length not exceeding 2.0 inches (51 mm).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.2.2.2 Heat release rate.** Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 100 kW.

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.2.2.3 Identification.** Mattresses shall bear the label of an approved agency, confirming compliance with the requirements of Sections 805.2.2.1 and 805.2.2.2.

**805.3 Group I-3, detention and correction facilities.** The requirements in Sections 805.3.1 through 805.3.2 shall apply to detention and correction facilities classified in Group I-3.

**805.3.1 Upholstered furniture.** Newly introduced upholstered furniture shall meet the requirements of Sections 805.3.1.1 through 805.3.1.3.

**805.3.1.1 Ignition by cigarettes.** Newly introduced upholstered furniture shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with one of the following: (a) mocked-up composites of the upholstered furniture shall have a char length not exceeding 1.5 inches (38 mm) when tested in accordance with NFPA 261 or (b) the components of the upholstered furniture shall meet the requirements for Class I when tested in accordance with NFPA 260.

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.3.1.2 Heat release rate.** Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537, as follows.

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

**Exceptions:**

1. In Use Condition I, II and III occupancies, as defined in the *International Building Code*, upholstered furniture in rooms or spaces protected by approved smoke detectors that initiate, without delay, an alarm that is audible in that room or space.
2. Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.3.1.3 Identification.** Upholstered furniture shall bear the label of an approved agency, confirming compliance with the requirements of Sections 805.3.1.1 and 805.3.1.2.

**805.3.2 Mattresses.** Newly introduced mattresses shall meet the requirements of Sections 805.3.2.1 through 805.3.2.3.

**805.3.2.1 Ignition by cigarettes.** Newly introduced mattresses shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with DOC 16 CFR Part 1632 and shall have a char length not exceeding 2.0 inches (51 mm).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

**805.3.2.2 Heat release rate.** Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590, as follows.

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

**Exception:** Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1

**805.3.2.3 Identification.** Mattresses shall bear the label of an approved agency, confirming compliance with the requirements of Sections 805.3.2.1 and 805.3.2.2.

## **SECTION 806 DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS**

**806.1 Natural cut trees.** Natural cut trees, where permitted by this section, shall have the trunk bottoms cut off at least 0.5 inch (12.7 mm) above the original cut and shall be placed in a support device complying with Section 806.1.2.

**806.1.1 Restricted occupancies.** Natural cut trees shall be prohibited in Group A, E, I-1, I-2, I-3, I-4, M, R-1, R-2 and R-4 occupancies.

**Exceptions:**

1. Trees located in areas protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or Section 903.3.1.2 shall not be prohibited in Groups A, E, M, R-1 and R-2.
2. Trees shall be permitted within dwelling units in Group R-2 occupancies.

**806.1.2 Support devices.** The support device that holds the tree in an upright position shall be of a type that is stable and that meets all of the following criteria:

1. The device shall hold the tree securely and be of adequate size to avoid tipping over of the tree.
2. The device shall be capable of containing a minimum 2-day supply of water.
3. The water level, when full, shall cover the tree stem at least 2 inches (51 mm). The water level shall be maintained above the fresh cut and checked at least once daily.

**806.1.3 Dryness.** The tree shall be removed from the building whenever the needles or leaves fall off readily when a tree branch is shaken or if the needles are brittle and break when bent between the thumb and index finger. The tree shall be checked daily for dryness.

**806.2 Artificial vegetation.** Artificial decorative vegetation shall meet the flame propagation performance criteria of NFPA 701. Meeting the flame propagation performance criteria of NFPA 701 shall be documented and certified by the manufacturer in an approved manner.

**806.3 Obstruction of means of egress.** The required width of any portion of a means of egress shall not be obstructed by decorative vegetation.

**806.4 Open flame.** Candles and open flames shall not be used on or near decorative vegetation. Natural cut trees shall be kept a distance from heat vents and any open flame or heat-producing devices at least equal to the height of the tree.

**806.5 Electrical fixtures and wiring.** The use of unlisted electrical wiring and lighting on natural cut trees and artificial decorative vegetation shall be prohibited. The use of electrical wiring and lighting on artificial trees constructed entirely of metal shall be prohibited.

## **SECTION 807 DECORATIVE MATERIALS OTHER THAN DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS**

**807.1 General requirements.** In occupancies of Groups A, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 806.2 or be noncombustible.

In Groups I-1 and I-2, combustible decorations shall meet the flame propagation criteria of NFPA 701 unless the decorations, such as photographs and paintings, are of such

limited quantities that a hazard of fire development or spread is not present. In Group I-3, combustible decorations are prohibited. Fixed or movable walls and partitions, paneling, wall pads and crash pads, applied structurally or for decoration, acoustical correction, surface insulation or other purposes, shall be considered interior finish if they cover 10% or more of the wall or of the ceiling area, and shall not be considered decorations or furnishings.

In Groups B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 805.2 and NFPA 701 or shall be noncombustible.

**807.1.1 Noncombustible materials.** The permissible amount of noncombustible decorative material shall not be limited.

**807.1.2 Flame-resistant materials.** The permissible amount of decorative materials meeting the flame propagation performance criteria of NFPA 701 shall not exceed 10 percent of the aggregate area of walls and ceilings.

**Exception:** In auditoriums of Group A, the permissible amount of decorative material meeting the flame propagation performance criteria of NFPA 701 shall not exceed 50 percent of the aggregate area of walls and ceiling where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, and where the material is installed in accordance with Section 803.4 of the *International Building Code*.

**807.2 Acceptance criteria and reports.** Where required to be flame resistant, decorative materials shall be tested by an approved agency and meet the flame propagation performance criteria of NFPA 701, or such materials shall be noncombustible. Reports of test results shall be prepared in accordance with NFPA 701 and furnished to the fire code official upon request.

**807.3 Pyroxylin plastic.** Imitation leather or other material, consisting of or coated with a pyroxylin or similarly hazardous base, shall not be used in Group A occupancies.

**807.4 Occupancy based requirements.** The provisions of Sections 807.4.1.1 through 807.4.1.3 shall be applicable to all occupancies covered by Sections 807.4.2 through 807.4.4.

**807.4.1.1 Explosive and highly flammable materials.** Furnishings or decorations of an explosive or highly flammable character shall not be used.

**807.4.1.2 Fire-retardant coatings.** Fire-retardant coatings in existing buildings shall be maintained so as to retain the effectiveness of the treatment under service conditions encountered in actual use.

**807.4.1.3 Obstructions.** Furnishings or other objects shall not be placed to obstruct exits, access thereto, egress therefrom or visibility thereof.

**807.4.2 Group A.** The requirements in Sections 807.4.2.1 and 807.4.2.2 shall apply to occupancies in Group A.

**807.4.2.1 Foam plastics.** Exposed foam plastic materials and unprotected materials containing foam plastic used for decorative purposes or stage scenery or exhibit booths shall have a maximum heat release rate of 100 kilowatts (kW) when tested in accordance with UL 1975.

**Exceptions:**

1. Individual foam plastic items or items containing foam plastic where the foam plastic does not exceed 1 pound (0.45 kg) in weight.
2. Foam plastic shall be allowed for trim not in excess of 10 percent of the wall or ceiling area, provided it is not less than 20 pounds per cubic foot (320 kg per cubic meter) in density, is limited to 0.5 inch (12.7 mm) in thickness and 8 inches (204 mm) in width, and complies with the requirements for Class B interior wall and ceiling finish, except that the smoke-developed index shall not be limited.

**807.4.2.2 Motion picture screens.** The screens upon which motion pictures are projected in new and existing buildings of Group A shall either meet the flame propagation performance criteria of NFPA 701, or shall comply with the requirements for a Class B interior finish in accordance with Section 803 of the *International Building Code*.

**807.4.3 Group E.** The requirements in Sections 807.4.3.1 through 807.4.3.2 shall apply to occupancies in Group E.

**807.4.3.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in corridors and lobbies.

**Exceptions:**

1. Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Corridors protected by an approved smoke detection system installed in accordance with Section 907.
3. Storage in metal lockers provided the minimum required egress width is maintained.

**807.4.3.2 Artwork.** Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area.

**807.4.4 Group I-4, day care facilities.** The requirements in Sections 807.4.4.1 and 807.4.4.2 shall apply to day care facilities classified in Group I-4.

**807.4.4.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in corridors and lobbies.

**Exceptions:**

1. Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Corridors protected by an approved smoke detection system installed in accordance with Section 907.
3. Storage in metal lockers provided the minimum required egress width is maintained.

**807.4.4.2 Artwork.** Artwork and teaching materials shall be limited on walls of corridors to not more than 20 percent of the wall area.

**807.5 Decorative materials in existing buildings.**

**807.5.1 General.** The provisions of this section shall limit the allowable combustibility, flame spread and smoke development of decorative materials in existing buildings based on location and occupancy classification.

**807.6 Churches and places of worship.** For churches and places of worship, wood used for ornamental purposes, trusses, paneling, or chancel furnishing shall be permitted.

**SECTION 808  
FURNISHINGS OTHER THAN UPHOLSTERED  
FURNITURE AND MATTRESSES OR  
DECORATIVE MATERIALS IN  
NEW AND EXISTING BUILDINGS**

**808.1 Group I-3, detention and correction facilities.** The requirements in Sections 808.1.1 and 808.1.2 shall apply to detention and correction facilities classified in Group I-3.

**808.1.1 Wastebasket** Wastebaskets and other waste containers shall be listed in accordance with UL 135 and shall be provided with a noncombustible lid.

**Exception:** Wastebaskets and other waste containers with a capacity of less than 20 gallons constructed of noncombustible or other approved materials.

## CHAPTER 9 – 2006 AMENDMENTS

### **FIRE PROTECTION SYSTEMS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**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 m<sup>2</sup>).
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.**

**(retain the 2002 building code 903.2.7, 903.2.8, 903.2.9, reconsider at 12/05 bcc)**

**906.1 Where required.** Portable fire extinguishers shall be installed in the following locations:

1. In all Group A, B, E, F, H, I, M, R-1, R-2, R-4, and S occupancies.  
**Exception:** Deleted.
2. Within 30 feet (9144 mm) of commercial cooking equipment.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1.
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.

**907.2.6.1 Group I-2.** Use the following language from the 2004 Code Supplement:

Corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by IBC Section 407.2 shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2.

Exceptions:

1. Corridor smoke detection is not required in smoke compartments that contain patient sleeping rooms where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each audible and visual alarm at the nursing station attending each unit.
2. Corridor smoke detection is not required in smoke compartments that contain patient sleeping rooms where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

**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, and 2.3. At least one manual fire alarm box is installed at an approved location.
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.

**907.3 Where required – retroactive in existing buildings and structures. (Deleted)**

**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.

**909.22 Smoke Control in High-Rise Buildings.** Either a smoke control system shall be installed in accordance with Section 909 or natural smoke venting shall be provided.

**909.22.1 Smoke venting.** Natural smoke venting, when provided, shall be installed in two or more exterior walls. Either fixed windows with tempered glass, or panels or windows which can be opened from the interior without the use of special devices shall be provided at the rate of 20 sq. Ft. Per 50 lineal feet of exterior wall in each story and distributed around the perimeter at not more than 50 foot intervals.

**TABLE 911.1  
EXPLOSION CONTROL REQUIREMENTS**

MATERIAL	CLASS	Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems
Liquefied petroleum gas distribution facilities	_____	Not required	Required

**TABLE 911.1**  
**EXPLOSION CONTROL REQUIREMENTS**

<b>MATERIAL</b>	<b>CLASS</b>	<b>Barricade construction</b>	<b>Explosion (deflagration) venting Or explosion (deflagration) prevention systems</b>
Flammable gas, <u>not including Liquefied petroleum gas</u>	Gaseous Liquefied	Not required Not required	Required Required

**Section 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 11 – 2006 AMENDMENTS**

### AVIATION FACILITIES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 12 – 2006 AMENDMENTS**

**DRY CLEANING**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 13 – 2006 AMENDMENTS**

COMBUSTIBLE DUST-PRODUCING OPERATIONS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 14 – 2006 AMENDMENTS**

### FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 15 – 2006 AMENDMENTS**

FLAMMABLE FINISHES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 16 – 2006 AMENDMENTS**

FRUIT AND CROP RIPENING

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 17 – 2006 AMENDMENTS**

FUMIGATION AND THERMAL INSECTICIDAL FOGGING

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 18 – 2006 AMENDMENTS**

SEMICONDUCTOR FABRICATION FACILITIES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 19 – 2006 AMENDMENTS**

LUMBER YARDS AND WOODWORKING FACILITIES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 20 – 2006 AMENDMENTS**

MANUFACTURE OF ORGANIC COATINGS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 21 – 2006 AMENDMENTS**

INDUSTRIAL OVENS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## CHAPTER 22 – 2006 AMENDMENTS

### MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**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 – 2006 AMENDMENTS**

HIGH-PILED COMBUSTIBLE STORAGE

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

## CHAPTER 24 – 2006 AMENDMENTS

### TENTS, CANOPIES AND OTHER MEMBRANE STRUCTURES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following amendment(s):**

**2403.5 Use period.** Temporary tents, air-supported, air-inflated or tensioned membrane structures and canopies shall not be ~~used~~ erected for a period of ~~not~~ more than 180 days within a 12-month period on a single premise.

**2403.12.2 Number.** Tents, canopies or membrane structures or a usable portion thereof shall have at least one exit and not less than the number of exits required by Table 2403.12.2. ~~The widths of means of egress required by Table 2403.12.2 shall be divided approximately equally among the separate means of egress.~~ The total width of means of egress in inches (mm) shall not be less than the total occupant load served by a means of egress multiplied

**CHAPTER 25 – 2006 AMENDMENTS**

**TIRE REBUILDING AND TIRE STORAGE**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

**CHAPTER 26 – 2006 AMENDMENTS**

**WELDING AND OTHER HOT WORK**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

**CHAPTER 27**  
**HAZARDOUS MATERIALS – GENERAL PROVISIONS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following NC amendment(s):**

**2703.7.1 Smoking.** Smoking shall be prohibited and “No Smoking” signs provided as follows:

1. In rooms or areas where hazardous materials are stored or dispensed or used in open systems in amounts requiring a permit in accordance with Section 2701.5.
2. Within 25 feet (7620 mm) of outdoor storage, dispensing or open use areas.
3. Facilities or areas within facilities that have been designated as totally “no smoking” shall have “No Smoking” signs placed at all entrances to the facility or area. Designated areas within such facilities where smoking is permitted either permanently or temporarily, shall be identified with signs designating that smoking is permitted in these areas only.
4. In rooms or areas where flammable or combustible hazardous materials are stored, dispensed or used.

## **CHAPTER 28 – 2006 AMENDMENTS**

### *AEROSOLS*

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 29 – 2006 AMENDMENTS**

### **COMBUSTIBLE FIBERS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 30 – 2006 AMENDMENTS**

### COMPRESSED GASES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following NC amendment(s):**

**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 27.

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 International 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 – 2006 AMENDMENTS**

### **CORROSIVE MATERIALS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 32 – 2006 AMENDMENTS**

### **CRYOGENIC FLUIDS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## CHAPTER 33 – 2006 AMENDMENTS

### EXPLOSIVES AND FIREWORKS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following NC amendment(s):**

**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.

**3301.2.3 Permit restrictions.** The fire code official is authorized to limit the quantity of explosives, explosive materials, or fireworks permitted at a given location. No person, possessing a permit for storage of explosives at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of explosive specified in such a permit shall be kept or stored.

**Exception:** Fireworks as described in NC General Statute 14-414

**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.

**3305.3 Intraplant separation of operating buildings.** Explosives and fireworks manufacturing buildings, including those where explosive charges are assembled, manufactured, prepared or loaded utilizing Division 1.1, 1.2, 1.3, 1.4 or 1.5 explosives, shall be separated from all other buildings, including magazines, within the confines of the manufacturing plant at a distance not less than those shown in Table 3305.3, 3304.5.2 (3), or Table 3304.5.2 (4), as appropriate. The quantity of explosives in an operating building shall be the net weight of all explosives contained therein. Distances shall be based on the hazard division requiring the greatest separation, unless the aggregate explosive weight is divided by approved walls or shields designed for that purpose. When dividing a quantity of explosives into smaller stacks, a suitable barrier or adequate separation distance shall be provided to prevent propagation from one stack to another. When distance is used as the sole means of separation within a building, such distance shall be established by testing. Testing shall demonstrate that propagation between stacks will not result. Barriers provided to protect against explosive effects shall be designed and installed in accordance with approved standards.

**Exception:**

~~Fireworks manufacturing buildings separated in accordance with NFPA 1124.~~

**3305.4 Separation of manufacturing operating buildings from inhabited buildings, public traffic routes, and magazines.** When an operating building on an explosive materials plant site is designed to contain explosive materials, such building shall be located away from inhabited buildings, public traffic routes and magazines in accordance with Table 3304.5.2(2), 3304.5.2(3) or 3304.5.2(4) as appropriate, based on the maximum quantity of explosive materials permitted to be in the building at one time (see Section 3301.8).

**Exception:**

~~Fireworks manufacturing buildings separated in accordance with NFPA 1124.~~

**3305.5 Buildings and equipment.** Buildings or rooms that exceed the maximum allowable quantity per control area of explosive materials shall be operated in accordance with this section and constructed in accordance with the requirements of the *International Building Code* for Group H occupancies.

**Exception:**

~~Fireworks manufacturing buildings separated in accordance with NFPA 1124.~~

**3308.11 Retail display and sale.** Fireworks allowed by North Carolina General Statute 14-414 shall be permitted to be sold, used or possess without a permit. A minimum of one pressurized-water portable fire extinguisher complying with Section 906 shall be located not more than 15 feet (4572 mm) and not less than 10 feet (3048 mm) from the hazard. "No Smoking" signs complying with Section 310 shall be conspicuously posted in areas where fireworks are stored or displayed for retail sale. No sale of fireworks shall be made to persons less than 16 years of age (N.C.G.S. 14-410).

## CHAPTER 34 – 2006 AMENDMENTS

### FLAMMABLE AND COMBUSTIBLE LIQUIDS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**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 – 2006 AMENDMENTS**

### **FLAMMABLE GASES**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 36 – 2006 AMENDMENTS**

FLAMMABLE SOLIDS

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 37 – 2006 AMENDMENTS**

**HIGHLY TOXIC AND TOXIC MATERIALS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## CHAPTER 38 – 2006 AMENDMENTS

### LIQUEFIED PETROLEUM GASES

**This Chapter consists of the 2003 IFC with the 2004 Supplement with the following NC amendment(s):**

**[Delete Chapter 38 and insert the following]**

**3801.1 Scope.** The storage handling, and transportation of liquefied petroleum gas and the installation of all equipment pertinent to systems for such uses upstream of the outlet of the first stage regulator shall be governed by Chapter 119, Article 5 of the General Statutes of North Carolina and by the North Carolina Administrative Code, Title 2, Chapter 38.

**3801.2 Permits.** *For permits see [Chapter 1](#).*

**3801.3 Inspection.** It shall be the duty of the North Carolina Department of Agriculture to inspect a reasonable number of liquefied petroleum gas installations to determine if the provisions of this chapter are being complied with.

**3801.4 Installation.** All liquefied petroleum gas equipment including such equipment installed at utility gas plants shall be installed in accordance with the provisions of NFPA 58 and NFPA 59, except as otherwise provided in this chapter or in laws or regulations legally in effect.

## **CHAPTER 39 – 2006 AMENDMENTS**

### **ORGANIC PEROXIDES**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

## **CHAPTER 40 – 2006 AMENDMENTS**

### **OXIDIZERS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

## **CHAPTER 41 – 2006 AMENDMENTS**

### **PYROPHORIC MATERIALS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s):**

**CHAPTER 42 – 2006 AMENDMENTS**

**PYROXYLIN (CELLULOSE NITRATE) PLASTICS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**CHAPTER 43 – 2006 AMENDMENTS**

**UNSTABLE (REACTIVE) MATERIALS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 44 – 2006 AMENDMENTS**

### **WATER-REACTIVE SOLIDS AND LIQUIDS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

## **CHAPTER 45 – 2006 AMENDMENTS**

### **REFERENCED STANDARDS**

**This Chapter consists of the 2003 IFC with the 2004 Supplement with no NC amendment(s).**

**[Note: The referenced standards in Chapter 9 need to be coordinated with the IBC, such as NFPA 13]**

**Appendix A:**

**Board Of Appeals**

*The provisions contained in this appendix are ~~not mandatory unless specifically referenced in the adopting ordinance~~ deleted.*

**Appendix B:**

**Fire-Flow Requirements for Buildings**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix C:**

**Fire Hydrant Locations and Distribution**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix D:**

**Fire Apparatus Access Roads**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix E:**

**Hazard Categories**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix F:**

**Hazard Ranking**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix G:**

**Cryogenic Fluids – Weight and Volume Equivalents**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

**Appendix H:**

**Test Requirements for Flame-Retardant Chemicals used on Christmas Trees**

*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*

## Appendixes – 2006 Amendments

This Chapter consists of the 2003 IFC with the 2004 Supplement with the following NC amendment(s):

[Delete all references to the *Urban Wildland Interface Code* from Appendix B]

[Add an Appendix H as follows]

### Appendix H

#### Test Requirements for Flame-Retardant Chemicals used on Christmas Trees

**H101.1 Scope.** The testing protocol outlined in Appendix H shall be performed by a laboratory approved by the Engineering Division of the North Carolina Department of Insurance.

**H101.2 Submittals.** Sufficient quantities of the chemical and fresh green Christmas trees branches of Frazier Fir or Douglas Fir shall be submitted to the laboratory, where the chemical shall be applied in accordance with the manufacturer's directions.

**H101.3 Chemical application.** The chemical shall be applied to fresh green branches of Frazier Fir or Douglas Fir approximately three feet long.

**H101.4 Testing procedure.** The laboratory shall allow treated and untreated specimens to age in controlled conditions (70°F and 50% relative humidity) for 30 days during and after which period the specimens shall be examined and the condition and appearance of the chemical or coating noted. The chemical or coating shall be dry to the touch within four hours and dry completely within 24 hours. During and after the aging period, there shall be no appreciable change in color or appearance, and no evidence of poor adhesive qualities (such as would be indicated by a tendency toward flaking or powdering off). At the completion of the 30-day aging period, the treated branches shall not lose their needles more readily nor shall they have turned brown to a greater extent than those of the untreated branches similarly aged.

**H102.1 Specimen preparation.** Six specimens, each approximately three feet long, shall be subjected to the fire resistance test. The specimens shall be suspended vertically in a rack which covers the upper one-half inch of the length. To protect the specimens from drafts, the apparatus shall be enclosed in a sheet metal shield, and provided with a vertical sliding glass front. Sufficient room shall be left at the bottom of the front to allow manipulation of the gas burner used in lighting the specimens.

**H102.2 Specimen testing.** The specimens shall be suspended with their lower end three-quarters inch above the top of a three-eighths-inch I.D. Bunsen or Tirril gas burner, with the air supply completely shut off and adjusted to give a luminous flame one and one-half inches long. The flame shall be applied vertically to the lower end of the specimens for twelve seconds, then withdrawn, and the duration of flaming in the specimens after

withdrawal of the burner noted. After complete extinction of all flame and glow in the specimen, the length of char shall be measured, as specified in Federal Specification CCC-T-191a, Supplement October 1945. Tests shall be made on several different areas of the treated branches.

**H102.3 Flame.** There shall be no spread of flame from the area in contact with the test flame and any after flaming shall not exceed ten seconds.

**H103.1 Report submittal.** A copy of the laboratory report shall be submitted to the Engineering Division of the North Carolina Department of Insurance covering in detail the method of application or treatment (number of coats, coverage in square feet per gallon, dilution, if any, etc.), the results of tests and the description of the condition or appearance of the treated specimens after aging (including change of color, dryness, brittleness, and any other pertinent qualities). The laboratory or manufacturer shall also submit to the Engineering Division of the North Carolina Department of Insurance at least one quart of this chemical of which approval is desired.

---

**H103.2 Additional Testing.** The Engineering Division of the North Carolina Department of Insurance may perform or cause to be performed such additional tests as deemed advisable or necessary, and whose decision in so far as approval of the chemical is concerned, shall be final.