2012 NC Administrative Code 107 Inspections. (140610 Item B-1)

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#### **SECTION 107 INSPECTIONS**

107.1 General. The inspection department shall perform the following inspections:

- 1. Footing inspection;
- 2. Under slab inspection, as appropriate;
- 3. Foundation inspection, wood-frame construction;
- 4. Rough-in inspection;
- 5. Building framing inspection;
- 6. Insulation inspection;
- 7. Fire protection inspection; and
- 8. Final inspection.

**107.1.1 Footing inspection.** Footing inspections shall be made after the trenches are excavated, all grade stakes are installed, all reinforcing steel and supports are in place and appropriately tied, and all necessary forms and bulkheads are in place and braced, and before any concrete is placed.

**107.1.2 Under-slab inspection.** Under-slab inspections, as appropriate, shall be made after all materials and equipment to be concealed by the concrete slab are completed.

**107.1.3 Foundation inspection, crawl space.** Foundation and crawl space inspections shall be made after all foundation supports are installed. The inspection is to check foundation supports, crawl space leveling, ground clearances and positive drainage when required.

**107.1.4 Rough-in inspection.** Rough-in inspections shall be made when all building framing and parts of the electrical, plumbing, fire protection, or heating-ventilation or cooling system that will be hidden from view in the finished building have been placed, but before any wall, ceiling finish, or building insulation is installed.

**107.1.5 Building Framing Inspection.** Framing inspections shall be made after the roof (excluding permanent roof coverings), wall, ceiling, and floor framing is complete with appropriate blocking, bracing, and firestopping in place. The following items shall be in place and visible for inspection:

- 1. Pipes;
- 2. Chimneys and vents;
- 3. Flashing for roofs and chimneys, and wall openings;
- 4. Insulation baffles; and

5. All lintels that are required to be bolted to the framing for support shall not be covered by any exterior or interior wall or ceiling finish material before approval. Work may continue without approval for lintels supported on masonry or concrete.

**107.1.6 Insulation inspection.** Insulation inspection shall be made after an *approved* building framing and rough-in inspection and after the permanent roof covering is installed, with all insulation and vapor retarders in place, but before any wall or ceiling covering is applied.

**107.1.7 Fire protection inspection.** Fire protection inspections shall be made in all buildings where any material is used for fire protection purposes. The permit holder or his agent shall notify the inspection department after all fire protection materials are in place. Fire protection materials shall not be concealed until inspected and approved by the code enforcement official.

**107.1.8 Final inspection.** Final inspections shall be made for each trade after completion of the work authorized under the technical codes.

2012 NC Energy Conservation Code 402.5 Maximum Fenestration U-Factor and SHGC. (140610 Item B-2)

**402.5 Maximum fenestration** *U*-factor and SHGC (Mandatory Requirements). The area-weighted average maximum fenestration *U*-factor permitted using trade-offs from Section 402.1.4 shall be 0.40. Maximum skylight *U*-factors shall be 0.65 in zones 4 and 5 and 0.60 in zone 3. The area-weighted average maximum fenestration SHGC permitted using trade-offs from Section 405 in zones 3 and 4 shall be 0.40. 0.50.

2015 NC Existing Building Code 505.1 Level 3 Alteration. (140610 Item B-3)

**505.1 Scope.** Level 3 Alteration (Reconstruction) apply applies where the work area exceeds 50 percent of the aggregate area of the building in any 12 month period. Exception: Alterations limited to displays or showrooms in Group M Occupancies.

2015 NC Existing Building Code 805.2 Means of Egress. (140610 Item B-4)

**805.2 General.** The means of egress shall comply with the requirements of this section. **Exceptions:** 

1. Where the work area and the means of egress serving it complies with NFPA 101.

2. Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress if, in the opinion of the code official, they do not constitute a distinct hazard of life.

<u>3.</u> In <u>one and two family dwellings</u>, stairways not required for egress are permitted to be as narrow as 26 inches.

2015 NC Existing Building Code 805.6 Dead End Corridors. (140610 Item B-5)

**805.6 Dead-end corridors.** Dead-end corridors in any work area shall not exceed 35 feet. **Exceptions:** 

1. Where dead-end corridors of greater length are permitted by the *International Building Code*.

2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *International Building Code*.

3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code*.

4. In other than Group A and H occupancies, the maximum length of a newly constructed, or extended dead-end corridor shall not exceed 50 feet on floors equipped with an automatic sprinkler system installed in accordance with the International Building Code.

2012 NC Building Code Chapter 34 Existing Structures. (140610 Item B-6)

# Delete Chapter 34, Existing Building And Structures, from the 2012 NC Building Code.

2012 NC Residential Code AM111 Figure – note concerning guards. (140610 Item B-10)

## Revisions to note concerning guards in FIGURE AM111

<u>**Guards**</u> at a Minimum 36" required per R312.1 with 30" drop and opening limits per R312.2 & R312.3 (4" on vertical pickets, 6" on horizontal and ornamental guardrails), top rail and post to support 200 lbs with infill to meet 50 lbs per Table R301.5 and footnotes.

2012 NC Fire Code 319 Rooftop Gardens and Landscaped Roofs. (140610 Item B-15)

## SECTION 319 ROOFTOP GARDENS AND LANDSCAPED ROOFS

**319.1 General.** Rooftop gardens and landscaped roofs shall be installed and maintained in accordance with Sections 319.2 through 319.5 and Sections 1505.0 and 1507.16 of the *International Building Code*.

**319.2 Rooftop garden or landscaped roof size.** Rooftop garden or landscaped roof areas shall not exceed 15,625 square feet (1,450 m2) in size for any single area with a maximum dimension of 125 feet (39 m) in length or width. A minimum 6-foot-wide (1.8 m) clearance consisting of a Class A-rated roof system complying with ASTM E 108 or UL 790 shall be provided between adjacent rooftop gardens or landscaped roof areas.

**319.3 Rooftop structure and equipment clearance.** For all vegetated roofing systems abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E 108 or UL 790 shall be achieved for a minimum 6-foot-wide (1.8 m) continuous border placed around rooftop structures and all rooftop equipment including, but not limited to, mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports, and building service equipment.

319.4 Vegetation. Vegetation shall be maintained in accordance with Sections 319.4.1 and 319.4.2.

**319.4.1 Irrigation.** Supplemental irrigation shall be provided to maintain levels of hydration necessary to keep green roof plants alive and to keep dry foliage to a minimum.

**319.4.2 Dead foliage.** Excess biomass, such as overgrown vegetation, leaves, and other dead and decaying material, shall be removed at regular intervals not less than two times per year.

**319.4.3 Maintenance plan.** The *fire code official* is authorized to require a maintenance plan for vegetation placed on roofs due to the size of a roof garden, materials used, or when a fire hazard exists to the building or exposures due to the lack of maintenance.

**319.5 Maintenance equipment.** Fueled equipment stored on roofs and used for the care and maintenance of vegetation on roofs shall be stored in accordance with Section 313.

2012 NC Fire Code 509.1.1 Utility Identification. (140610 Item B-16)

**509.1.1 Utility identification.** Gas shutoff valves, electric meters, service switches, and other utility equipment shall be clearly and legibly marked to identify the unit or space that it serves. Identification shall be made in a manner that is visible and shall be maintained.

2012 NC Fire Code 1208.2 Automatic Sprinkler System Exceptions. (140610 Item B-17)

**1208.2** Automatic sprinkler system. An *automatic sprinkler system* shall be installed in accordance with Section 903.3.1.1 throughout dry cleaning plants containing Type II, Type III-A or Type III-B dry cleaning systems.

## Exceptions:

1. An *automatic sprinkler system* shall not be required in Type III-A dry cleaning plants where the aggregate quantity of Class III-A solvent in dry cleaning machines and storage does not exceed 330 gallons (1250 L) and dry cleaning machines are equipped with a feature that will accomplish any one of the following:

1.1. Prevent oxygen concentrations from reaching 8 percent or more by volume.

1.2. Keep the temperature of the solvent at least 30 F (16.7 C) below the flash point.

1.3. Maintain the solvent vapor concentration at a level lower than 25 percent of the lower explosive limit (LEL).

1.4. Utilize equipment *approved* for use in Class I, Division 2 hazardous locations in accordance with NFPA 70.

1.5. Utilize an integrated dry-chemical, clean agent or water-mist automatic fire-extinguishing system designed in accordance with Chapter 9.

2. An *automatic sprinkler system* shall not be required in Type III-B dry cleaning plants where the aggregate quantity of Class III-B solvent in dry cleaning machines and storage does not exceed 3,300 gallons (12 490 L).

## Delete existing Chapter 17 text and replace with the following:

#### **CHAPTER 17 FUMIGATION AND INSECTICIDAL**

#### FOGGINGSECTION 1701 GENERAL

**1701.1 Scope**. Fumigation and insecticidal fogging operations within buildings, structures and spaces shall comply with this chapter.

1701.2 Permits. Permits shall be required as set forth in Section 105.6.

## SECTION 1702 DEFINITIONS

**1702.1 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

**FUMIGANT**. A substance which by itself or in combination with any other substance emits or liberates a gas, fume or vapor utilized for the destruction or control of insects, fungi, vermin, germs, rats or other pests, and shall be distinguished from insecticides and disinfectants which are essentially effective in the solid or liquid phases. Examples are methyl bromide, ethylene dibromide, hydrogen cyanide, carbon disulfide and sulfuryl fluoride.

**FUMIGATION.** The utilization within an enclosed space of a fumigant in concentrations that are hazardous or acutely toxic to humans.

**INSECTICIDAL FOGGING.** The utilization of insecticidal liquids passed through fog-generating units where, by means of pressure and turbulence, with or without the application of heat, such liquids are transformed and discharged in the form of fog or mist blown into an area to be treated.

## SECTION 1703 FIRE SAFETY REQUIREMENTS

**1703.1 General.** Buildings, structures and spaces in which fumigation and insecticidal fogging operations are conducted shall comply with the fire protection and safety requirements of Sections 1703.2 through 1703.7.

**1703.2 Sources of ignition.** Fires, open flames and similar sources of ignition shall be eliminated from the space under fumigation or insecticidal fogging. Heating, where needed, shall be of an *approved* type.

**1703.2.1 Electricity.** Electricity in any part of the building, structure or space where operation of switches or electrical devices, equipment or systems could serve as a source of ignition shall be shut off.

**Exception:** Circulating fans that have been specifically designed for utilization in hazardous atmospheres and installed in accordance with NFPA 70.

**1703.2.2 Electronic devices.** Electronic devices, including portable equipment and cellular phones, shall be shut off. Telephone lines shall be disconnected from telephones.

**1703.2.3 Duration**. Sources of ignition shall be shut off during the fumigation activity and remain shut off until the ventilation required in Section 1703.6 is completed.

**1703.3** Notification. The *fire code official* and fire chief shall be notified in writing not less than 48 hours before the building, structure or space is to be closed in connection with the utilization of any toxic or flammable fumigant. Notification shall give the location of the enclosed space to be fumigated or fogged,

the occupancy, the fumigants or insecticides to be utilized, the person or persons responsible for the operation, and the date and time at which the operation will begin. Written notice of any fumigation or insecticidal fogging operation shall be given to all affected occupants of the building, structure or space in which such operations are to be conducted with sufficient advance notice to allow the occupants to evacuate the building, structure or space. Such notice shall inform the occupants as to the purposes, anticipated duration and hazards associated with the fumigation or insecticidal fogging operation.

**1703.3.1 Warning signs.** *Approved* warning signs indicating the danger, type of chemical involved and necessary precautions shall be posted on all doors and entrances to the affected building, structure or space and upon all gangplanks and ladders from the deck, pier or land to a ship. Such notices shall be printed in red ink on a white background. Letters in the headlines shall be not less than 2 inches (51 mm) in height and shall state the date and time of the operation, the name and address of the person, the name of the operator in charge, and a warning stating that the affected building, structure or space shall be vacated not less than 1 hour before the operation begins and shall not be reentered until the danger signs have been removed by the proper authorities.

**1703.3.2 Breathing apparatus.** Persons engaged in the business of fumigation or insecticidal fogging shall maintain and have available *approved* protective breathing apparatus.

**1703.3.3 Watch personnel.** During the period fumigation is in progress, except where fumigation is conducted in a gas-tight vault or tank, a responsible watchperson shall remain on duty at the entrance or entrances to the enclosed fumigated space until after the fumigation is completed and the building, structure or space is properly ventilated and safe for occupancy. Sufficient watchers shall be provided to prevent persons from entering the enclosed space under fumigation without being observed.

**1703.3.4 Evacuation during fumigation.** Occupants of the building, structure or space to be fumigated, except the personnel conducting the fumigation, shall be evacuated from such building, structure or space prior to commencing fumigation operations.

**1703.3.5 Evacuation during insecticidal fogging operations.** Occupants in the building, structure or space to be fogged, except the personnel conducting the insecticidal fogging operations, shall be evacuated from such building, structure or space prior to commencing fogging operations.

**1703.4 Insecticidal fogging liquids.** Insecticidal fogging liquids with a *flash point* below I00°F (38°C) shall not be utilized.

**1703.5 Sealing of buildings, structures and spaces.** Paper and other similar materials that do not meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 shall not be used to wrap or cover a building, structure or space in excess of that required for the sealing of cracks, casements and similar openings.

**1703.5.1 Maintenance of openings.** All openings to the building, structure or space to be fumigated or fogged shall be kept securely closed during such operation.

**1703.6 Venting and cleanup.** At the end of the exposure period, fumigators shall safely and properly ventilate the premises and contents; properly dispose of fumigant containers, residues, debris and other materials used for such fumigation; and clear obstructions from gas-fired appliance vents.

**1703.7 Flammable fumigants restricted.** The use of carbon disulfide and hydrogen cyanide shall be restricted to agricultural fumigation.

Standard Reference Number	Title	Referenced in code section number
10- <del>07</del> <u>13</u>	Portable Fire Extinguishers	No Change to
11- <del>05</del> 10	Low-, Medium- and High-expansion foam	Section numbers
12- <del>05</del> <u>11</u>	Carbon Dioxide Extinguishing Systems	
12A- <del>04</del> <u>09</u>	Halon 1301 Fire Extinguishing Systems	
13- <del>07-<u>13</u></del>	Installation of Sprinkler Systems	
13D- <del>07</del> <u>13</u>	Installation of Sprinkler Systems in One-and-Two family and Manufactured Homes	y dwellings
13R- <del>07</del> <u>13</u>	Installation of Sprinkler Systems in Residential Occupan and Including Four Stories in Height.	icies up to
14- <del>07</del> <u>13</u>	Installation of Standpipe and Hose Systems	
15- <del>07<u>12</u></del>	Water Spray Fixed Systems for Fire Protection	
16- <del>07</del> <u>11</u>	Installation of Foam-water Sprinkler and Foam-water Spray Systems	
17- <del>02</del> <u>13</u>	Dry Chemical Extinguishing Systems	
17A- <del>02</del> <u>13</u>	Wet Chemical Extinguishing Systems	
20- <del>07</del> <u>13</u>	Installation of Stationary Pumps for Fire Protection	
22- <del>03</del> <u>13</u>	Water Tanks for Private Fire Protection	
24- <del>07</del> <u>13</u>	Installation of Private Fire Service Mains and Their Appurtenances	
25- <del>08</del> <u>14</u>	Inspection Testing and Maintenance of Water-based Fire Protection Systems	
30- <del>08</del> <u>12</u>	Flammable and Combustible Liquids Code	
30A- <del>08</del> <u>12</u>	Code for Motor Fuel-dispensing Facilities and Repair Garages	
30B- <del>07</del> <u>11</u>	Manufacture and Storage of Aerosol Products	
31- <del>06</del> <u>11</u>	Installation of Oil-burning Equipment	
32- <del>07</del> <u>11</u>	Dry Cleaning Plants	
33- <del>07</del> <u>11</u>	Spray Application Using Flammable or Combustible Materials	
34- <del>07</del> <u>11</u>	Dipping and Coating Processes Using Flammable or Combustible Liquids	
35- <u>05-11</u>	Manufacture of Organic Coatings	
40- <del>07</del> <u>11</u>	Storage and Handling of Cellulose Nitrate Film	
51 - <del>07</del> <u>13</u>	Design and Installation of Oxygen-fuel Gas Systems for and Allied Processes	Welding, Cutting
51A- <del>06</del> <u>12</u>	Acetylene Cylinder Charging Plants	
52- <del>06</del> <u>13</u>	Vehicular Fuel System Code	
55- <del>05</del> <u>13</u>	Standard for the Storage, Use and Handling of Compress	
	Cryogenic Fluids in Portable and Stationary Containers	Cylinders and Tanks
58- <del>08-<u>14</u></del>	Liquefied Petroleum Gas Code	
59A- <del>06-<u>13</u></del>	Production, Storage and Handling of Liquefied Natural Gas (LNG)	
61- <del>08-<u>13</u></del>	Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities	
69- <del>08</del> <u>14</u>	Explosion Prevention Systems	
70-08 14	National Electrical Code	
72- <del>07</del> <u>13</u>	National Fire Alarm and Signaling Code	
80- <del>07-<u>13</u> 85-<del>07</del> 11</del>	Fire Doors and Other Opening Protectives	
85- <del>07</del> <u>11</u> 86- <del>07</del> 11	Boiler and Combustion System Hazards Code	
92B- <del>07</del> <u>11</u> 92B- <del>05</del> 12	Ovens and Furnaces Smoke Management Systems in Malls, Atria and Large Spaces	
92B- <del>03</del> <u>12</u> 99- <del>05-</del> 12	Health Care Facilities	
101- <del>06</del> 12	Life Safety Code	
101-00 12	Life barely Code	

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105- <del>07-<u>10</u></del>	Installation of Smoke Door Assemblies and Other Opening Protectives	
110 - <del>05 <u>10</u></del>	Emergency and Standby Power Systems	
111- <del>05-<u>10</u></del>	Stored Electrical Energy Emergency and Standby Power Systems	
120- <del>04-<u>10</u></del>	Coal Preparation Plants	
160- <del>06</del> 11	Flame Effects Before an Audience	
170- <del>06</del> 12	Standard for Fire Safety and Emergency Symbols	
211-06 13	Chimneys, Fireplaces, Vents and Solid Fuel-burning Appliances	
241-04 13	Safeguarding Construction, Alteration and Demolition Operations	
253- <del>06</del> 11	Standard Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant	
	Heat Energy Source	
260- <del>03-<u>13</u></del>	Method of Tests and Classification System for Cigarette Ignition Resistance	
	of Components of Upholstered Furniture	
261- <del>03</del> <u>13</u>	Method of Test for Determining Resistance of Mock-up Upholstered Furniture	
	Material Assemblies to Ignition by Smoldering Cigarettes	
265- <del>07</del> <u>11</u>	Method of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall	
	Coverings in Full Height Panels and Walls	
286- <del>06-<u>11</u></del>	Standard Method of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior	
	Finish to Room Fire Growth	
303- <del>06-<u>11</u></del>	Fire Protection Standard for Marinas and Boatyards	
385- <del>07-<u>12</u></del>	Tank Vehicles for Flammable and Combustible Liquids	
407- <del>07-<u>12</u></del>	Aircraft Fuel Servicing	
409- <del>04 <u>11</u></del>	Aircraft Hangars	
430-04	Storage of Liquid and Solid Oxidizers	
484- <del>06-<u>12</u></del>	Combustible Metals	
490-02	Storage of Ammonium Nitrate	
495- <del>06-<u>13</u></del>	Explosive Materials Code	
498- <del>06-<u>13</u></del>	Safe Havens and Interchange Lots for Vehicles Transporting Explosives	
505- <del>06-<u>13</u></del>	Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance and	
	Operation	
654- <del>06-<u>13</u></del>	Prevention of Fire and Dust Explosions from the Manufacturing, Processing and	
	Handling of Combustible Particulate Solids	
655- <del>07-<u>12</u></del>	Prevention of Sulfur Fires and Explosions	
664- <del>07</del> <u>12</u>	Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities	
701- <del>04-<u>10</u></del>	Methods of Fire Tests for Flame- propagation of Textiles and Films	
703- <del>06-<u>12</u></del>	Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials	
704- <del>07-<u>12</u></del>	Identification of the Hazards of Materials for Emergency Response	
750- <del>06-<u>10</u></del>	Water Mist Fire Protection Systems	
1122- <del>08-<u>13</u></del>	Model Rocketry	
1123- <del>10</del> <u>14</u>	Fireworks Display	
1124- <del>06-<u>13</u></del>	Manufacture, Transportation, Storage and Retail Sale of Fireworks and Pyrotechnic	
	Articles	
1125- <del>07</del> <u>12</u>	Manufacture of Model Rocket and High Power Rocket Motors	
1126- <del>10</del> <u>11</u>	Use of Pyrotechnics Before a Proximate Audience	
1127- <del>08</del> <u>13</u>	High Power Rocketry	
1142- <del>07-<u>12</u></del>	Water Supply for Suburban and Rural Fire Fighting	
2001- <del>08</del> <u>12</u>	Clean Agent Fire Extinguishing Systems	