

## MEMO

**Date: December 28, 2022**

**To: Bridget Herring, Chair, NCBCC  
Jason Shepherd, Chair, Fire Committee**

**From: Charlie Johnson,  
Staff, Chief Fire Code Consultant**

**Re: GS 143-138(e) NC State Building Code  
Local Fire Prevention Regulations**

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### **Orange County Code of Ordinances**

**Request is for approval to amend the Orange County Code of Ordinances, Section 14-1 Fire, to adopt all optional operational permits as identified in the NC Fire Prevention Code, Section 105.**

Staff has reviewed the ordinance for the following statutory requirements and identified items that are:

1. More stringent than the adopted statewide fire prevention code, and
2. Which are found to regulate only activities and conditions in buildings, structures, and premises, and
3. That pose dangers of fire, explosion or related hazards, and
4. Are not matters in conflict with the State Building Code.

**Staff recommends approval of this ordinance.**

### **§ 143-138. North Carolina State Building Code.**

(e) Effect upon Local Codes. - Except as otherwise provided in this section, the North Carolina State Building Code shall apply throughout the State, from the time of its adoption. Approved rules shall become effective in accordance with G.S. 150B-21.3. However, any political subdivision of the State may adopt a fire prevention code and floodplain management regulations within its jurisdiction. The territorial jurisdiction of any municipality or county for this purpose, unless otherwise specified by the General Assembly, shall be as follows: Municipal jurisdiction shall include all areas within the corporate limits of the municipality and extraterritorial jurisdiction areas established as provided in G.S. 160D-202 or a local act; county jurisdiction shall include all other areas of the county. No such code or regulations, other than floodplain management regulations and those permitted by G.S. 160D-1128, shall be effective until they have been officially approved by the Building Code Council as providing adequate minimum standards to preserve and protect health and safety, in accordance with the provisions of subsection (c) above. Local floodplain regulations may regulate all types and uses of buildings or structures located in flood hazard areas identified by local, State, and federal agencies,

and include provisions governing substantial improvements, substantial damage, cumulative substantial improvements, lowest floor elevation, protection of mechanical and electrical systems, foundation construction, anchorage, acceptable flood resistant materials, and other measures the political subdivision deems necessary considering the characteristics of its flood hazards and vulnerability. In the absence of approval by the Building Code Council, or in the event that approval is withdrawn, local fire prevention codes and regulations shall have no force and effect. Provided any local regulations approved by the local governing body which are found by the Council to be more stringent than the adopted statewide fire prevention code and which are found to regulate only activities and conditions in buildings, structures, and premises that pose dangers of fire, explosion or related hazards, and are not matters in conflict with the State Building Code, may be approved. Local governments may enforce the fire prevention code of the State Building Code using civil remedies authorized under G.S. 143-139, 153A-123, and 160A-175. If the Commissioner of Insurance or other State official with responsibility for enforcement of the Code institutes a civil action pursuant to G.S. 143-139, a local government may not institute a civil action under G.S. 143-139, 153A-123, or 160A-175 based upon the same violation. Appeals from the assessment or imposition of such civil remedies shall be as provided in G.S. 160D-1127.

A local government may not adopt any ordinance in conflict with the exemption provided by subsection (c1) of this section. No local ordinance or regulation shall be construed to limit the exemption provided by subsection (c1) of this section.

## Sec. 14-1. - Fire prevention.

- (a) The Board of County Commissioners hereby adopts and incorporates appendices B, C, D, F, and H and all optional Operational Permits in Section 105 of the North Carolina State Fire Prevention Code into this chapter.
- (b) Amendments to appendices B, C, D, F, and H and all optional Operational Permits in Section 105 of the North Carolina State Fire Prevention Code, which are adopted and published by the State Building Code Council, shall be effective in Orange County at the time such amendments are made effective by the State Building Code Council. Should such appendices and permits be repealed or deleted by the State Building Code Council or the North Carolina General Assembly such appendices and permits shall be repealed in Orange County.
- (c) Copies of the North Carolina Administrative Code and the North Carolina State Fire Prevention Code, their appendices and amendments, shall be maintained in the office of the Orange County Fire Marshal.

(Res. No. 2016-021, Att., 3-22-2016, eff. 3-22-2016; Res. No. 2021-062, eff. 10-19-21)

**RESOLUTION OF AMENDMENT**

**A RESOLUTION AMENDING CHAPTER 14 OF THE ORANGE COUNTY CODE  
OF ORDINANCES**

Be it Resolved and Ordained by the Board of Commissioners of Orange County, North Carolina:

WHEREAS, the fire code official is authorized to issue permits for operations in Section 105.6 of the North Carolina Fire Code; and

WHEREAS, operations permits are listed as optional and mandatory and any operations permits listed as optional must be adopted by local ordinance to be legally issued by the fire marshal's division; and

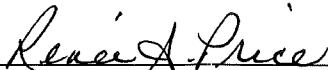
WHEREAS, the Orange County Fire Marshal recommends Orange County to adopt the optional permits for the benefits provided for fire safety practices.

NOW THEREFORE BE IT RESOLVED AND ORDAINED, the Code of Ordinances, Orange County, North Carolina, Chapter 14, Section 1 is hereby amended by adopting the optional operational permits, which amendment reads as shown in the attached revised ordinance.

This Amendment is effective upon adoption.

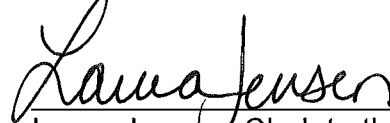
Adopted by the Orange County Board of Commissioners this 19<sup>th</sup> day of October, 2021.

By:

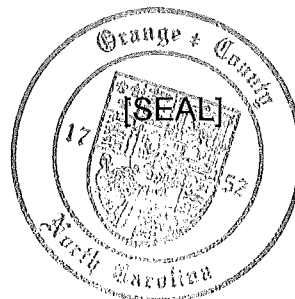


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Renee Price, Chair  
Orange County Board of Commissioners

Attest:



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Laura Jensen, Clerk to the Board



**ORANGE COUNTY  
BOARD OF COMMISSIONERS**

**ACTION AGENDA ITEM ABSTRACT**

**Meeting Date:** October 19, 2021

**Action Agenda  
Item No.** 8-e

**SUBJECT:** Amendments to the Orange County Code of Ordinances, Section 14-1- Fire, to Adopt All Optional Operational Permits as Identified in the NC Fire Prevention Code, Section 105

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**DEPARTMENT:** Emergency Services, Fire  
Marshal Division

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**ATTACHMENT(S):**  
2018 North Carolina Fire Prevention Code,  
Section 105  
Resolution of Amendment  
Ordinance Amendment

**INFORMATION CONTACT:**  
Elizabeth Farnan, 919-245-6153

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**PURPOSE:** To approve a resolution amending the Orange County Code of Ordinances, Section 14-1- Fire, to adopt all Optional Operational Permits as identified in the NC Fire Prevention Code, Section 105.

**BACKGROUND:** The Orange County Fire Marshal's Division is seeking approval to amend the Orange County Code of Ordinances, Section 14-1- Fire, to include all of the optional Operational Permits as identified in the NC Fire Prevention Code, Section 105. The fire code official is authorized to issue permits for operations in Section 105.6 of the NC Fire Code. Operational permits are listed as optional and mandatory. Operational permits listed as optional must be adopted by local ordinance to be legally issued by the fire marshal's division.

It would be beneficial for Orange County to adopt the optional permits for the benefits provided for fire safety practices. Adoption would also mirror the Town of Hillsborough's adoption of these codes and provide consistency in permitting between the Town and County since the Orange County Fire Marshal's Division is now providing fire permitting for the Town of Hillsborough.

**FINANCIAL IMPACT:** There is a financial impact to potential permit holders who seek to obtain permits as indicated in the County's existing adopted fee schedule. Orange County is impacted financially by the receipt of revenue collected for issuance of referenced permits.

**SOCIAL JUSTICE IMPACT:** The following Orange County Social Justice Goals are applicable to this item:

- **GOAL: CREATE A SAFE COMMUNITY**  
The reduction of risks from vehicle/traffic accidents, childhood and senior injuries, gang activity, substance abuse and domestic violence.

- **GOAL: ESTABLISH SUSTAINABLE AND EQUITABLE LAND-USE AND ENVIRONMENTAL POLICIES**

The fair treatment and meaningful involvement of people of all races, cultures, incomes and educational levels with respect to the development and enforcement of environmental laws, regulations, policies, and decisions. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

**ENVIRONMENTAL IMPACT:** The following Orange County Environmental Responsibility Goal Impact is applicable to this item:

- **RESULTANT IMPACT ON NATURAL RESOURCES AND AIR QUALITY**

Assess and where possible mitigate adverse impacts created to the natural resources of the site and adjoining area. Minimize production of greenhouse gases.

**RECOMMENDATION(S):** The Manager recommends that the Board approve the attached resolution adopting the amendments to the Orange County Code of Ordinances, Section 14-1-Fire, to include Optional Operational Permits as identified in the NC Fire Prevention Code, Section 105.

## Section 105 Permits

### 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 [105.6.48](#).

#### 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 Carbon Dioxide Systems Used in Beverage Dispensing Applications (Optional Permit)

An operational [permit](#) is required for carbon dioxide [systems](#) used in beverage [dispensing](#) applications having more than 100 pounds of carbon dioxide.

#### 105.6.5 Carnivals and Fairs (Mandatory Permit)

An operational [permit](#) is required to conduct a carnival or fair.

#### 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](#)**

TYPE OF GAS	AMOUNT (cubic feet at NTP)
<a href="#">Corrosive</a>	200
Flammable (except <a href="#">cryogenic fluids</a> and liquefied petroleum gases)	200
<a href="#">Highly toxic</a>	Any Amount
Inert and simple asphyxiant <sup>a</sup>	6,000
Oxidizing (including oxygen)	504
<a href="#">Pyrophoric</a>	Any Amount
<a href="#">Toxic</a>	Any Amount

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

a. For carbon dioxide used in beverage [dispensing](#) applications, see [Section 105.6.4](#).

### 105.6.10 Covered and Open 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](#)**

<b>TYPE OF <a href="#">CRYOGENIC FLUID</a></b>	<b>INSIDE BUILDING (gallons)</b>	<b>OUTSIDE BUILDING (gallons)</b>
Flammable	More than 1	60
Inert	60	500
Oxidizing (includes oxygen)	10	50
Physical or <a href="#">health hazard</a> not indicated above	Any Amount	Any Amount

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 (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 [explosives](#), [explosive materials](#), [fireworks](#) or [pyrotechnic special effects](#) within the scope of [Chapter 56](#).

#### Exceptions:

1. [Fireworks](#) allowed by North Carolina N.C.G.S. 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 5606](#).

#### 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 that 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:

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:

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 [fire code official](#), would cause an unsafe condition.
2. The storage or use of paints, oils, varnishes or similar flammable mixtures where 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 store, handle or use Class IIIB [liquids](#) in [tanks](#) or portable [tanks](#) for fueling motor vehicles at motor fuel-[dispensing facilities](#) or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.

5. **(Optional permit)**. To remove Class I or II [liquids](#) from an underground storage [tank](#) used for fueling motor vehicles by any means other than the *approved*, stationary on-[site](#) pumps normally used for [dispensing](#) purposes.
6. **(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.
7. **(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](#).
8. **(Mandatory permit)**. To change the type of contents stored in a flammable or [combustible liquid tank](#) to a material that poses a greater hazard than that for which the [tank](#) was designed and constructed.
9. **(Mandatory permit)**. To manufacture, process, blend or refine flammable or [combustible liquids](#).
10. **(Mandatory permit)**. To engage in the [dispensing](#) of [liquid](#) fuels into the fuel [tanks](#) of motor vehicles at commercial, industrial, governmental or manufacturing establishments.
11. **(Mandatory permit)**. To utilize a [site](#) for the [dispensing](#) of [liquid](#) fuels from [tank vehicles](#) into the fuel [tanks](#) of motor vehicles, marine craft and other special equipment 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 Insecticidal Fogging (Mandatory Permit)

An operational [permit](#) is required to operate a business of [fumigation](#) or [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**

TYPE OF MATERIAL	AMOUNT
<a href="#">Combustible liquids</a>	See <a href="#">Section 105.6.17</a>
<a href="#">Corrosive materials</a>	
Gases	See <a href="#">Section 105.6.9</a>
<a href="#">Liquids</a>	55 gallons
<a href="#">Solids</a>	1000 pounds
<a href="#">Explosive materials</a>	See <a href="#">Section 105.6.15</a>
<a href="#">Flammable materials</a>	
Gases	See <a href="#">Section 105.6.9</a>
<a href="#">Liquids</a>	See <a href="#">Section 105.6.17</a>
<a href="#">Solids</a>	100 pounds
<a href="#">Highly toxic materials</a>	
Gases	See <a href="#">Section 105.6.9</a>
<a href="#">Liquids</a>	Any Amount
<a href="#">Solids</a>	Any Amount
Oxidizing materials	
Gases	See <a href="#">Section 105.6.9</a>
<a href="#">Liquids</a>	
Class 4	Any Amount
Class 3	1 gallon <sup>a</sup>

Class 2	10 gallons
Class 1	55 gallons
<u>Solids</u>	
Class 4	Any Amount
Class 3	10 pounds <sup>b</sup>
Class 2	100 pounds
Class 1	500 pounds
<u>Organic peroxides</u>	
<u>Liquids</u>	
Class I	Any Amount
Class II	Any Amount
Class III	1 gallon
Class IV	2 gallons
Class V	No <u>Permit</u> Required
<u>Solids</u>	
Class I	Any Amount
Class II	Any Amount
Class III	10 pounds
Class IV	20 pounds
Class V	No <u>Permit</u> Required
<u>Pyrophoric</u> materials	
Gases	Any Amount
<u>Liquids</u>	Any Amount
<u>Solids</u>	Any Amount
<u>Toxic</u> materials	
Gases	See <u>Section 105.6.9</u>
<u>Liquids</u>	10 gallons
<u>Solids</u>	100 pounds
<u>Unstable (reactive) materials</u>	
<u>Liquids</u>	
Class 4	Any Amount
Class 3	Any Amount
Class 2	5 gallons
Class 1	10 gallons
<u>Solids</u>	
Class 4	Any Amount
Class 3	Any Amount
Class 2	50 pounds
Class 1	100 pounds

(continued)

**TABLE 105.6.21—continued PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**

<b>TYPE OF MATERIAL</b>		<b>AMOUNT</b>
<u>Water-reactive materials</u>		
<u>Liquids</u>		
Class 3		Any Amount
Class 2		5 gallons
Class 1		55 gallons
<u>Solids</u>		
Class 3		Any Amount
Class 2		50 pounds
Class 1		500 pounds

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

- a. 20 gallons where [Table 5003.1.1\(1\)](#) Note k applies and hazard identification signs in accordance with [Section 5003.5](#) are provided for quantities of 20 gallons or less.
- b. 200 pounds where [Table 5003.1.1\(1\)](#) Note k applies and hazard identification signs in accordance with [Section 5003.5](#) are provided for quantities of 200 pounds or less.

**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:

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 [wildfire risk area](#).

5. Application of roof coverings with the use of an open-flame device.
6. Where *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 35](#). 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 30](#).

#### **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](#) may be required and issued by the North Carolina Department of Agriculture and Consumer Services 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 Motor Fuel-Dispensing Facilities (Optional Permit)**

An operational [permit](#) is required for the operation of automotive, marine and fleet motor fuel-[dispensing facilities](#).

#### **105.6.32 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](#).

#### **105.6.33 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 [wildfire risk area](#).

#### **105.6.34 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.

#### **105.6.35 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.

#### **105.6.36 Places of Assembly (Optional Permit)**

An operational [permit](#) is required to operate a place of assembly.

#### **105.6.37 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.

#### **105.6.38 Pyrotechnic Special Effects Material (Mandatory Permit)**

An operational [permit](#) is required for use and [handling](#) of [pyrotechnic special effects](#) material.

#### **105.6.39 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.

#### **105.6.40 Refrigeration Equipment (Optional Permit)**

An operational [permit](#) is required to operate a mechanical refrigeration unit or [system](#) regulated by [Chapter 6](#).

#### **105.6.41 Repair Garages (Optional Permit)**

An operational [permit](#) is required for operation of [repair garages](#).

#### **105.6.42 Rooftop Heliports (Optional Permit)**

An operational [permit](#) is required for the operation of a rooftop [heliport](#).

#### **105.6.43 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 24](#).

#### **105.6.44 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.

#### **105.6.45 Temporary Membrane Structures and Tents (Mandatory Permit)**

An operational [permit](#) is required to operate an air-supported temporary [membrane structure](#), or a [temporary stage canopy](#) having an area in excess of 400 square feet (37 m<sup>2</sup>), or a [tent](#) having an area in excess of 800 square feet (74 m<sup>2</sup>).

##### **Exceptions:**

1. [Tents](#) used exclusively for recreational camping purposes.
2. [Tents](#) open on all sides, which comply with all of the following:
  1. Individual [tents](#) having a maximum size of 1800 square feet (167 m<sup>2</sup>).
  2. The aggregate area of multiple [tents](#) placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 1800 square feet (167 m<sup>2</sup>) total.
  3. A minimum clearance of 12 feet (3658 mm) to structures and other [tents](#) shall be provided.
3. Funeral [tents](#) and curtains or extensions attached thereto, when used for funeral services.

#### **105.6.46 Tire-Rebuilding Plants (Optional Permit)**

An operational [permit](#) is required for the operation and maintenance of a tire-rebuilding plant.

#### **105.6.47 Waste Handling (Optional Permit)**

An operational [permit](#) is required for the operation of wrecking [yards](#), junk [yards](#) and waste material-[handling facilities](#).

#### **105.6.48 Wood Products (Optional Permit)**

An operational [permit](#) is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m<sup>3</sup>).

#### **105.6.49 Temporary Sleeping Units for Disaster Relief Workers (Mandatory Permit)**

An operational [permit](#) is required for operation of long-term temporary [sleeping units](#) for disaster relief workers.

The delayed effective date of this Rule is January 1, 2021.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

## 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 [105.7.18](#). See the *North Carolina Administrative Code and Policies* 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 to be a modification and does not require a [permit](#).

### 105.7.2 Battery Systems

A [permit](#) is required to install [stationary storage battery systems](#) having a [liquid](#) capacity of more than 50 gallons (189 L).

### 105.7.3 Compressed Gases

Where 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](#).

**Exception:** Routine maintenance.

### 105.7.4 Cryogenic Fluids

A construction [permit](#) is required for installation of or [alteration](#) to outdoor stationary [cryogenic fluid](#) storage [systems](#) where the [system](#) capacity exceeds the

amounts listed in [Table 105.6.11](#). Maintenance performed in accordance with this code is not considered to be an [alteration](#) and does not require a construction [permit](#).

#### **105.7.5 Emergency Responder Radio Coverage System**

A construction [permit](#) is required for installation of or modification to emergency responder radio coverage [systems](#) and related equipment. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction [permit](#).

#### **105.7.6 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 to be a modification and does not require a construction [permit](#).

#### **105.7.7 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 to be a modification and does not require a construction [permit](#).

#### **105.7.8 Flammable and Combustible Liquids**

A construction [permit](#) is required:

1. To install, 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. Maintenance performed in accordance with this code is not considered an installation, construction or [alteration](#) and does not require a [permit](#).
3. To install, alter, remove, abandon or otherwise dispose of a flammable or [combustible liquid tank](#).

#### **105.7.9 Gates and Barricades Across Fire Apparatus Access Roads**

A construction [permit](#) is required for the installation of or modification to a gate or [barricade](#) across a [fire apparatus access road](#).

#### **105.7.10 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 50](#) where the [hazardous materials](#) in use or storage exceed the amounts listed in [Table 105.6.21](#).

**Exceptions:** Routine maintenance.

#### **105.7.11 Industrial Ovens**

A construction [permit](#) is required for installation of industrial ovens covered by [Chapter 30](#).

Exception: Routine maintenance.

#### **105.7.12 LP-gas**

A construction [permit](#) for installation of or modification to an LP-gas [system](#) may be required and approved by the North Carolina Department of Agriculture and Consumer Services. Maintenance performed in accordance with this code is not considered to be a modification and does not require a [permit](#).

#### **105.7.13 Private Fire Hydrants**

A construction [permit](#) is required for the installation or modification of private fire hydrants. Maintenance performed in accordance with this code is not considered to be a modification and does not require a [permit](#).

#### **105.7.14 Smoke Control or Smoke Exhaust Systems**

Construction [permits](#) are required for installation of or [alteration](#) to smoke control or smoke exhaust [systems](#). Maintenance performed in accordance with this code is not considered to be an [alteration](#) and does not require a [permit](#).

#### **105.7.15 Solar Photovoltaic Power Systems**

A construction [permit](#) is required to install or modify solar photovoltaic power [systems](#). Maintenance performed in accordance with this code is not considered to be a modification and does not require a [permit](#).

#### **105.7.16 Spraying or Dipping**

A construction [permit](#) is required to install or modify a [spray room](#), [dip tank](#) or booth. Maintenance performed in accordance with this code is not considered to be a modification and does not require a [permit](#).

#### **105.7.17 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 to be a modification and does not require a [permit](#).

#### **105.7.18 Temporary Membrane Structures and Tents**

A construction [permit](#) is required to erect an air-supported temporary [membrane structure](#), or a [temporary stage canopy](#) having an area in excess of 400 square feet (37 m<sup>2</sup>), or a [tent](#) having an area in excess of 800 square feet (74 m<sup>2</sup>).

#### **Exceptions:**

1. [Tents](#) used exclusively for recreational camping purposes.
2. Funeral [tents](#) and curtains, or extensions attached thereto, when used for funeral services.
3. [Tents](#) open on all sides, which comply with all of the following:
  1. Individual [tents](#) shall have a maximum size of 1800 square feet (167 m<sup>2</sup>).
  2. The aggregate area of multiple [tents](#) placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 1800 square feet (167 m<sup>2</sup>) total.
  3. A minimum clearance of 12 feet (3658 mm) to structures and other [tents](#) shall be provided.

RES-2021-062

**RESOLUTION OF AMENDMENT****A RESOLUTION AMENDING CHAPTER 14 OF THE ORANGE COUNTY CODE OF ORDINANCES**

Be it Resolved and Ordained by the Board of Commissioners of Orange County, North Carolina:

WHEREAS, the fire code official is authorized to issue permits for operations in Section 105.6 of the North Carolina Fire Code; and

WHEREAS, operations permits are listed as optional and mandatory and any operations permits listed as optional must be adopted by local ordinance to be legally issued by the fire marshal's division; and

WHEREAS, the Orange County Fire Marshal recommends Orange County to adopt the optional permits for the benefits provided for fire safety practices.

NOW THEREFORE BE IT RESOLVED AND ORDAINED, the Code of Ordinances, Orange County, North Carolina, Chapter 14, Section 1 is hereby amended by adopting the optional operational permits, which amendment reads as shown in the attached revised ordinance.

This Amendment is effective upon adoption.

Adopted by the Orange County Board of Commissioners this 19<sup>th</sup> day of October, 2021.

By:

Attest:

\_\_\_\_\_  
Renee Price, Chair  
Orange County Board of Commissioners

\_\_\_\_\_  
Laura Jensen, Clerk to the Board

[SEAL]

Sec. 14-1. - Fire prevention.

- (a) The Board of County Commissioners hereby adopts and incorporates appendices B, C, D, F, and H **and all optional Operational Permits in Section 105** of the North Carolina State Fire Prevention Code into this chapter.
- (b) Amendments to appendices B, C, D, F, and H **and all optional Operational Permits in Section 105** of the North Carolina State Fire Prevention Code, which are adopted and published by the State Building Code Council, shall be effective in Orange County at the time such amendments are made effective by the State Building Code Council. Should such appendices **and permits** be repealed or deleted by the State Building Code Council or the North Carolina General Assembly such appendices **and permits** shall be repealed in Orange County.
- (c) Copies of the North Carolina Administrative Code and the North Carolina State Fire Prevention Code, their appendices and amendments, shall be maintained in the office of the Orange County Fire Marshal.