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Document No. 4320

**DEPARTMENT OF LABOR, LICENSING AND REGULATION**

**BUILDING CODES COUNCIL**

CHAPTER 8

Statutory Authority: 1976 Code Sections 6-9-40 and 6-9-63(E)

Article 8. International Building Code

Article 9. International Fire Code

Article 10. International Fuel Gas Code

Article 11. National Electrical Code

**Synopsis:**

The South Carolina Building Codes Council will amend its regulations by adding Article 8, based upon the International Building Code, 2012 Edition; by adding Article 9, based upon the International Fire Code, 2012 Edition; by adding Article 10, based upon the International Fuel Gas Code, 2012 Edition; and by adding Article 11, based upon the National Electrical Code, 2011 Edition, in accordance with the statutory amendments to acts governing the Building Codes Council, including proposed modifications.

The Notice of Drafting was published in the *State Register* on September 28, 2012.

Copies of the referenced codes can be found at <http://publicecodes.citation.com/icod/IC-P-2012-000019.htm>

**Instructions:**

The following sections of Chapter 8 are added as provided below. All other items and sections remain unchanged.

**Text:**

ARTICLE 8

INTERNATIONAL BUILDING CODE

2012 International Building Code Modification Summary

(Statutory Authority: 1976 Code Section 6-9-40)

8-800. International Building Code.

NOTE-This article is based upon the International Building Code, 2012 Edition, in accordance with the statutory amendments to acts governing the Building Codes Council, except for the modifications referenced below.

This code is identical to the 2012 Edition of the International Building Code except for the following modifications:

8-801. IBC Section 403.2.1 Reduction in fire-resistance rating.

8-802. IBC Section 706.3 Materials.

8-803. IBC Table 706.4 Fire Wall Fire-Resistance Ratings.

a. For group H-1, H-2 or H-3 buildings, also see Sections 415.6 and 415.7.

8-804. IBC Section 1014.2. Egress through intervening spaces.

Means of egress shall consist of continuous and unobstructed paths of travel to the exterior of a building. Means of egress shall not be permitted through kitchens, closets, restrooms and similar areas nor through adjacent tenant spaces.

Exception: Means of egress shall be permitted through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or guest room.

When unusually hazardous conditions exist, the building official may require additional means of egress to assure the safety of the occupants.

8-805. IBC Section Appendix H Signs.

Adopt Appendix H.

ARTICLE 9

INTERNATIONAL FIRE CODE

2012 International Fire Code Modification Summary

(Statutory Authority: 1976 Code Section 6-9-40)

8-900. International Fire Code.

NOTE-This article is based upon the International Fire Code, 2012 Edition, in accordance with the statutory amendments to acts governing the Building Codes Council, except for the modifications referenced below.

This code is identical to the 2012 Edition of the International Fire Code except for the following modifications:

8‑901. IFC Section 202 General definitions.

An outdoor fire burning materials other than rubbish where the fire being burned is not contained in an incinerator, outdoor fireplace, portable outdoor fireplace, barbeque grill or barbeque pit and has a total fuel area of 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height for pleasure, religious, ceremonial to include sky lanterns, cooking, warmth or similar purpose.

8-902. IFC Section 202 General definitions.

Sky lanterns are miniature, unmanned hot air balloons categorized as a recreational fire. This open flame source in the lantern creates heat inside which causes the lantern to lift into the atmosphere, uncontrollably. These devices are often used in celebrations and other recreational events and are also known as “Kongming lanterns.”

8-903. IFC Section 307.5. Attendance.

Sky lanterns are prohibited, unless tethered or anchored.

8-904. IFC Section 503.2.1 Dimensions.

Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm) except for approved security gates in accordance with Section 503.6 and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

8-905. IFC Section 507.1 Required water supply.

Water supply. Approved fire hydrants shall be provided for buildings to meet the necessary fire flow requirements as determined by the fire official. Where public water supply is inadequate or not available, an approved alternative water source meeting the fire flow requirements shall be provided. Fire flow performance tests shall be witnessed by the fire official, or representative, prior to final approval.

Location. The location and number of hydrants shall be designated by the fire official, but in no case, shall distance between installed fire hydrants exceed 1000 ft (305 m). Fire hydrants shall be located within 500 ft (152 m) of all firefighter access points when measured along the normal routes of fire department vehicle access which conforms to the requirements of Section 503. No point on the exterior of a building shall be located more than 500 ft (152 m) from a fire hydrant accessible to fire department vehicles as provided in Section 503.

Exception. One and two family dwellings, including attached or detached accessory structures.

8-906. IFC Section 905.3 Required installations.

1. Standpipe systems are not required in Group R-3 occupancies.

2. Where a standpipe system is provided per section 905, the hose and nozzle may be removed if approved by the AHJ.

8-907. IFC Section 906.1(1) Where required.

8-908. IFC Section 2307.2.2 Listed equipment.

Hoses, hose connections, vehicle fuel connections, dispensers, LP-gas pumps and electrical equipment used for LP-gas shall comply with the requirements of NFPA 58.

8-909. IFC Section 2307.4 Location of dispensing operations and equipment.

In addition to the requirements of Section 2306.7, the point of transfer for LP-gas dispensing operations shall be 25 feet (7620 mm) or more for buildings having combustible exterior wall surfaces, buildings having combustible exterior wall surfaces that are not part of a 1-hour fire-resistance-rated assembly, or buildings having combustible overhangs, *lot lines* of property which could be built on, and railroads; and least 10 feet (3048 mm) from public streets, or sidewalks and buildings having noncombustible exterior wall surfaces that are part of a fire-resistance-rated assembly having a rating of 1 hour or more; and 5 feet from driveways.

Exception: 1. the point of transfer for LP-gas dispensing operations need not be separated from canopies that are constructed in accordance with the *International Building Code* and which provide weather protection for the dispensing equipment. 2. The separation from driveways is not required where the driveway serves the vehicle fuel dispenser.

LP-gas containers shall be located in accordance with Chapter 61. LP-gas storage and dispensing equipment shall be located outdoors and in accordance with Section 2306.7.

8-910. IFC Section 2307.5.3 Vehicle impact protection.

Exception: An alternative method may be used that meets the intent of this section with the approval of the AHJ.

8-911. IFC Section 2307.6 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. In addition to the requirements of Sections 2305 and 2306.7, 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 mm) of, but not less than 20 feet (6096 mm) from dispensers.

2. The *owner* of the LP-gas motor fuel-dispensing facility shall provide for the safe operation of the system and the training of users.

8-912. IFC Section 6101.1 Scope.

Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gas shall be determined in accordance with Annex B of NFPA 58.

8-913. IFC Section 6103.2.1.1 Use in basement, pit or similar location.

LP-gas containers complying 6103.2.2 shall be permitted to be used in basements and above grade underfloor spaces provided such location has adequate ventilation for equipment utilization. Equipment with attached cylinders shall not be left unattended or stored in such location after use. LP-gas container storage shall comply with Section 6109.7. Self contained torch assemblies may be used in accordance with 6103.2.1.6.

8-914. IFC Section 6103.2.1.6 Use with self-contained assemblies.

Portable LP-gas containers are allowed to be used to supply approved self contained torch assemblies or similar appliances. Such containers shall not exceed a water capacity of 2.7 pounds (1.2 kg).

8-915. IFC Section 6105.2 Release to the atmosphere.

LP-gas shall not be released to the atmosphere, except as provided in NFPA 58 7.3.1.

8-916. IFC Section 6106.1 Attendants.

Dispensing of LP-gas shall be performed by a qualified attendant that meets the requirements of this section and NFPA 58 Section 4.4.

8-917. IFC Section 6106.2 Overfilling.

LP-gas containers shall not be filled or maintained with LP-gas in excess of either the volume determined using the fixed maximum liquid-level gauge installed in accordance with NFPA 58 5.7.5 and in accordance with the manufacturer’s specifications or equivalent, or the weight determined by the required percentage of the water capacity marked on the container. Portable LP-gas containers shall not be refilled unless equipped with an overfilling prevention device (OPD) where required by Section 5.7.3 of NFPA 58.

8-918. IFC Section 6107.4 Protecting containers from vehicles.

Exception: An alternative method may be used that meets the intent of this section with the approval of the AHJ.

8-919. IFC Section 6109.3 Position.

LP-gas containers in storage having individual water capacity greater than 2.7 pounds (1.2 kg) [nominal 1-pound (0.454 kg) LP-gas capacity] shall be positioned with the pressure relief valve in direct communication with the vapor space of the container.

8-920. IFC Section 6109.7 Storage in basement, pit or similar location.

Department of Transportation (DOT) specification cylinders with a maximum water capacity of 2.7 pounds (1.2 kg) for use in completely self contained hand torches and similar applications. The quantity of LP-gas shall not exceed 20 pounds (9 kg).

8-921. IFC Section 6109.9 Storage within buildings accessible to the public.

Department of Transportation (DOT) specification cylinders with a maximum water capacity of 2.7 pounds (1.2 kg) used in completely self contained hand torches and similar applications are allowed to be stored or displayed in a building accessible to the public. The quantity of LP-gas shall not exceed 200 pounds (91 kg) except as provided in Section 6109.11.

8-922. IFC Section 6109.13 Protection of containers.

LP-gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle protections shall be required as required by the *fire code official* in accordance with IFC 312 or NFPA 58 8.4.2.2.

8-923. IFC Section 6110.1 Temporarily out of service.

Containers not connected for service at customer locations. LP-gas containers at customer locations that are not connected for service shall comply with all of the following:

1. Have LP-gas container outlets, except relief valves, closed and plugged or capped.

2. Be positioned with the relief valve in direct communication with the LP-gas container vapor space.

8-924. IFC Section 6111.2.1 Near residential, educational and institutional occupancies and other high-risk areas.

Separation distance requirements may be reduced to not less than 50 feet as approved by the *fire code official*, based upon a completed fire safety analysis and consideration of special features such as topographical conditions, capacity of the LP-gas vehicle and the capabilities of the local fire department. The Office of the State Fire Marshall will provide an approved fire safety analysis to be utilized for this specific requirement.

8-925. IFC Section 6111.3 Garaging.

Garaging of LP-gas tank vehicles shall be as specified in NFPA 58. Vehicles with LP-gas fuel systems are allowed to be stored or serviced in garages as specified in Section 11.16 of NFPA 58.

ARTICLE 10

INTERNATIONAL FUEL GAS CODE

2012 International Fuel Gas Code Modification Summary

(Statutory Authority: 1976 Code Section 6-9-40)

8-1000. International Fuel Gas Code.

NOTE-This article is based upon the International Fuel Gas Code, 2012 Edition, in accordance with the statutory amendments to acts governing the Building Codes Council, except for the modifications referenced below.

This code is identical to the 2012 Edition of the International Fuel Gas Code except for the following modifications:

8-1001. IFGC Section 401.9 Identification.

8-1002. IFGC Section 401.10 Third-party testing and certification.

All piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code, including Section 403 of the IFGC and corresponding sections.

8-1003. IFGC Section 412.4 Listed equipment.

Hoses, hose connections, vehicle fuel connections, dispensers, LP-gas pumps and electrical *equipment* used for LP-gas shall comply with the requirements of NFPA 58.

8-1004. IFGC Section 412.6 Location.

In addition to the fuel dispensing requirements of the *International Fire Code*, the point of transfer for dispensing operations shall be 25 feet (7620 mm) or more from buildings having combustible exterior wall surfaces, buildings having noncombustible exterior wall surfaces that are not part of a 1-hour fire-resistance-rated assembly or buildings having combustible overhangs, property which could be built on, and railroads; and at least 10 feet (3038 mm) from public streets or sidewalks and buildings having noncombustible exterior wall surfaces that are part of a fire-resistance-rated assembly having a rating of 1 hour or more; and 5 feet from driveways.

Exception: 1. The point of transfer for dispensing operations need not be separated from canopies providing weather protection for the dispensing equipment constructed in accordance with the *International Building Code*. Liquefied petroleum gas containers shall be located in accordance with the *International Fire Code*. 2. The separation from driveways is not required where the driveway serves the vehicle fuel dispenser.

Liquefied petroleum gas storage and dispensing equipment shall be located outdoors and in accordance with the *International Fire Code*.

8-1005. IFGC Section 412.7.3 Vehicle impact protection.

Exception: An alternative method may be used that meets the intent of this section with the approval of the AHJ.

8-1006. IFGC Section 412.8 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. In addition to the requirements of the International Fire Code, self-service LP-gas dispensing systems shall be provided with an emergency shutoff switch located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from, dispensers and the owner of the dispensing facility shall ensure the safe operation of the system and the training of users.

8-1007. IFGC Section 505.1.1 Commercial cooking appliances vented by exhaust hoods.

Exception: An interlock between the cooking appliance and the exhaust hood system shall not be required for appliances that are of the manually operated type and are factory equipped with standing pilot burner ignition systems.

ARTICLE 11

NATIONAL ELECTRICAL CODE

2011 National Electrical Code Modification Summary

(Statutory Authority: 1976 Code Section 6-9-40)

8-1100. National Electrical Code.

NOTE-This article is based upon the National Electrical Code, 2011 Edition, in accordance with the statutory amendments to acts governing the Building Codes Council, except for the modifications referenced below.

This code is identical to the 2011 Edition of the National Electrical Code except for the following modifications:

8-1101. NEC Article 210.12(B) Arc-Fault Circuit-Interrupter Protection.

(c) A circuit serving no outlets within the bedroom except the smoke detector shall not be protected by an arc-fault protector.

**Fiscal Impact Statement:**

There will be no cost incurred by the State or any of its political subdivisions.

**Statement of Rationale:**

The science and technology supporting the development of these regulations can be found in the corresponding construction codes located at the website referenced in the synopsis.