SUBARTICLE 1
FIRE PREVENTION AND LIFE SAFETY

71-8300. FIRE PREVENTION AND LIFE SAFETY.
(Statutory Authority: 1976 Code Sections 23-9-60, 39-41-260, 40-82-70)

71-8300.1. General.

A. Title. These regulations shall be known as the State Fire Marshal's Rules and Regulations.

B. Intent.

1. The purpose of these regulations is:
   a. to safeguard to a reasonable degree, life and property from fire, explosion, dangerous conditions, natural disasters, acts of terrorism, and other hazards associated with the construction, alteration, repair, use, and occupancy of buildings, structures, or premises, and
   b. to provide safety to fire fighters and emergency responders during emergency situations.

2. These regulations shall be the minimum standards required by the Office of State Fire Marshal (OSFM) for fire prevention and life safety in South Carolina for all buildings and structures and shall not be waived.

C. Applicability.

1. These regulations shall apply to state, county, municipal, and private buildings, structures, or premises unless excluded by these regulations or state statute.

2. All buildings, structures, or premises shall be constructed, altered, or repaired in conformance with these regulations.

3. All equipment or systems in a building, structure, or premise shall be constructed, installed, altered, or repaired in conformance with these regulations.

4. These regulations become effective immediately upon the publication as final regulations in the South Carolina State Register.

5. These regulations shall not conflict with any state statute, code, or ordinance adopted pursuant to S.C. Code Ann. Section 6-9-5 et. seq., 1976, as amended, by any municipality or political subdivision. In the event of a conflict, such statute, code, or ordinance shall apply.

6. These regulations shall not apply to:
   a. Buildings constructed, or occupied exclusively as one and two-family dwellings, unless amended by these or other state regulations. Conversion of such buildings to another use that is not regulated under the IRC but is regulated under the IBC is considered a change of occupancy, and such buildings must comply with the applicable provisions of the IBC for such a change of use.

D. Existing Buildings.

1. Unless addressed by requirements in these regulations, adopted codes, or state statutes that are indicated to be applicable to them, existing buildings, structures, or premises shall be permitted to continue in operation under the code applicable at the time when the buildings, structures, or premises were constructed.

2. Alterations, repairs, additions, and rehabilitation to an existing building, structure, or premise shall fully comply with the current codes.

3. Change of use or occupancy of an existing building shall comply with the current code requirements for change of occupancy classification.
E. Acronyms and Definitions: The following references apply throughout these regulations. Words not defined in these regulations shall have the meaning stated in the referenced codes and standards adopted by these regulations.

1. "AHJ" means Authority Having Jurisdiction, which is the SFM, or his agents, or any local fire official covered by S.C. Code Ann. Section 23-9-30, 1976, as amended.

2. "ATF" means the United States Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives.

3. "Bulk hydrogen compressed gas system" means an assembly of equipment that consists of, but is not limited to, storage containers, pressure regulators, pressure relief devices, compressors, manifolds, and piping with a storage capacity of more than 400 cubic feet (approximately 3000 gal.) of compressed hydrogen gas (or 5000 scf), including unconnected reserves on hand at the site, and terminates at the source valve.

4. "Bulk liquefied hydrogen gas system" means an assembly of equipment that consists of, but is not limited to, storage containers, pressure regulators, pressure relief devices, vaporizers, liquid pumps, compressors manifolds, and piping, with a storage capacity of more than 39.7 gal. of liquidized hydrogen, including unconnected reserves on hand at the site, and terminates at the source valve.

5. "Citation" means a summons to appear before the OSFM because of a violation of any part or all of this regulation and may carry a monetary fine of up to $2,000 per violation.

6. "Consumer Fireworks" means any small device designed to produce visible effects by combustion and which must comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Product Safety Commission, as set forth in Title 16, Code of Federal Regulations, parts 1500 and 1507. Some small devices designed to produce audible effects are included, such as whistling devices, ground devices containing fifty (50) mg or less of explosive materials, and aerial devices containing 130 mg or less of explosive materials. Consumer fireworks are classified as fireworks UN0336 and UN0337 by the USDOT at 49 CFR 172.101. This term does not include fused setpieces containing components which together exceed 50 mg of salute powder. Consumer fireworks are further defined as those classified by the USDOT hazard classification 1.4g. These fireworks were formerly known as "Class C Fireworks."

7. "Container" means all vessels including, but not limited to, tanks, cylinders, or pressure vessels used for the storage of hydrogen.

8. "Display Fireworks" means large fireworks designed primarily to produce visible or audible effects by combustion, deflagration, or detonation. This term includes, but is not limited to, salutes containing more than two (2) grains (130 mg) of explosive materials, aerial shells containing more than 40 grams of pyrotechnic compositions, and other display pieces which exceed the limits of explosive materials for classification as "Consumer Fireworks." Display fireworks are classified as fireworks UN0333, UN0334, or UN0335 by the USDOT at 49 CFR 172.101. This term also includes fused setpieces containing components which together exceed fifty (50) mg of salute powder. Display fireworks are further defined as those classified by the USDOT hazard classification 1.3g. These fireworks were formerly known as "Class B Fireworks."


10. "Engineered hydrogen systems" means systems or equipment that is custom designed for a particular application.

11. "Existing Building" means a building, structure, or premise for which preliminary or final drawings have been approved by the appropriate agency as provided in these regulations, in buildings where construction has begun, or those occupied on or before the date of adoption of these regulations.

12. "Fire Prevention" means any activity to prevent fire before fire occurs.

13. "Fireworks" means any composition or device designed to produce a visible or an audible effect by combustion, deflagration, or detonation, and which meets the definition of "consumer fireworks" or "display fireworks" as defined by this section.


15. "Fixed Fire Extinguishing System" means a pre-engineered fire extinguishing system.

16. "Hydrogen" is an element of the periodic table which, at room temperature and pressure, but can be compressed and/or refrigerated into a liquefied state.
17. “Hydrogen facility” is a fueling station or a fuel cell site that will store or dispense hydrogen for use as a transportation fuel, motor fuel, or in a fuel cell.

18. “Hydrogen generation system” means a packaged, factory matched, or site constructed hydrogen gas generation appliance or system such as (a) an electrolyzer that uses electrochemical reactions to electrolyze water to produce hydrogen gas; (b) a reformer that converts hydrocarbon fuel to a hydrogen-rich stream of composition and condition suitable for a type of device using the hydrogen. It does not include hydrogen generated as a byproduct of a waste treatment process.


25. “Motion Picture” means, for the purposes of this item, any audiovisual work with a series of related images either on film, tape, or other embodiment, where the images shown in succession impart an impression of motion together with accompanying sound, if any, which is produced, adapted, or altered for exploitation as entertainment, advertising, promotional, industrial, or educational media.

26. “MSDS(s)” means Material Safety Data Sheet(s).


28. “OSFM” means the Office of State Fire Marshal, Division of Fire and Life Safety, Department of Labor, Licensing and Regulation.

29. “Person” means an individual, partnership, or corporation;

30. “Portable Fire Extinguisher” means a portable device containing extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing a fire.

31. “Pre-engineered hydrogen system” means a system or device that has been designed with the intention of mass production and sales to the public, which uses or produces hydrogen in its function.

32. “Proximate Audience” means any indoor use of pyrotechnics and the use of pyrotechnics before an audience located closer than the distances allowed by NFPA 1123.

33. “Public Firework Display” means a presentation of Display or Consumer Fireworks for a public gathering.

34. “Pyrotechnics” means any composition or device designed to produce visible or audible effects for entertainment purposes by combustion, deflagration, or detonation.


36. “Servicing” includes maintenance, recharging, or hydrostatic testing of a Portable Fire Extinguisher or a Fixed Fire Extinguishing System.

37. “SFM” means the State Fire Marshal or his agent.

38. “Theatrical Pyrotechnics” means pyrotechnic devices for professional use in the entertainment industry similar to consumer fireworks in chemical composition and construction but not intended for consumer use.

71-8300.2. Codes and Standards.

A. All references to codes and standards found in these regulations refer to the editions specified in the IFC unless otherwise stated in these regulations or adopted by state statutes.

B. The requirements of the IFC, International Fire Code, (as adopted pursuant to S.C. Code Ann. Section 6-9-5, et. seq., 1976, as amended) shall constitute the minimum standards for fire prevention and life safety protection for construction, occupancy, and use of all buildings, structures, and premises within the scope of these regulations except as modified by these regulations. In addition, to the extent to which they can be applied without conflicting with other state regulations or state statutes, the following sections of Chapter 1 of the IFC shall apply:

1. Scope and General Requirements (Section 101). “The State of South Carolina” shall be used for the Name of Jurisdiction.
2. Applicability (Section 102)
3. Liability (Section 103.4)
4. General Authority and Responsibilities (Section 104)
5. Maintenance (Section 107)
6. Unsafe Buildings (Section 110)

C. The requirements of NFPA 10, Standard for Portable Fire Extinguishers, shall be used as referenced within the adopted ICC codes for the installation, servicing, maintenance, recharging, repairing, and hydrostatic testing of all portable fire extinguishers.

D. The requirements of the following NFPA standards shall be used as referenced within the adopted ICC codes for the design, installation, testing and maintenance of fixed fire extinguishing systems in South Carolina except as modified by these regulations.

1. NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam
2. NFPA 12, Standard on Carbon Dioxide Extinguishing Systems
3. NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems
4. NFPA 17, Standard for Dry Chemical Extinguishing Systems
5. NFPA 17A, Standard for Wet Chemical Extinguishing Systems
6. NFPA 750, Standard on Water Mist Fire Protection Systems
7. NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems

E. The requirements of the following NFPA standards shall be used as referenced within the adopted ICC codes for the design, installation, testing, and maintenance of water-based extinguishing systems in South Carolina except as modified by these regulations.

1. NFPA 13, Standard for the Installation of Sprinkler Systems
2. NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
4. NFPA 14, Standard for the Installation of Standpipe and Hose Systems
7. NFPA 18, Standard on Wetting Agents
8. NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection
9. NFPA 22, Standard for Water Tanks for Private Fire Protection
The requirements of NFPA 30, Flammable and Combustible Liquids Code, shall be used as referenced within the adopted ICC codes for the storing and handling of flammable and combustible liquids in South Carolina except as modified by these regulations.

The requirements of NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages, shall be used as referenced within the adopted ICC codes for the storing, handling, and dispensing of flammable and combustible liquids at service stations, farms, and isolated sites in South Carolina except as modified by these regulations.

The requirements of NFPA 52, Vehicular Gaseous Fuel Systems Code, shall be used as referenced within the adopted ICC codes for storing, handling, and dispensing vehicular alternative fuels in South Carolina except as modified by these regulations.

The requirements of NFPA 54, National Fuel Gas Code, shall be used as referenced within the adopted ICC codes for design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance installation of fuel gas piping systems, appliances, equipment, and related accessories, installation, combustion, and ventilation air and venting in South Carolina except as modified by these regulations.

The requirements of NFPA 58, Liquefied Petroleum Gas Code, shall be used as referenced within the adopted ICC codes for the design, construction, location, installation and operation of equipment for storing, handling, transporting by tank truck or tank trailer, and use of LP-Gases and the odorization of such gases in South Carolina except as modified by these regulations.

The requirements of NFPA 59, Utility LP-Gas Plant Code, shall be used as referenced within the adopted ICC codes for the design, construction, location, installation, operation, and maintenance of refrigerated and non-refrigerated utility gas plants to the point where LP-Gas or an LP-Gas and air mixture is introduced into the utility distribution system in South Carolina except as modified by these regulations.

The requirements of NFPA 70, National Electrical Code, shall be used as referenced within the adopted ICC codes for fire prevention and life safety from hazards of electricity in South Carolina except as modified by these regulations.

The requirements of NFPA 72, National Fire Alarm and Signaling Code, shall be used as referenced within the adopted ICC codes for the design, installation, testing, and maintenance of fire alarm systems in South Carolina except as modified by these regulations.

The requirements of NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, shall be used as referenced within the adopted ICC codes for ventilation control and fire protection of commercial cooking operations in South Carolina except as modified by these regulations.

The requirements of NFPA 99, Health Care Facilities Code, shall be used as referenced within the adopted ICC codes for flammable and non-flammable medical gasses used in health care and other facilities intended for inhalation or sedation, but not limited to, analgesia systems for dentistry, podiatry, veterinary, and similar uses in South Carolina except as modified by these regulations.

The requirements of NFPA 101, Life Safety Code, shall be used as referenced within the adopted ICC codes for fire prevention and life safety in South Carolina when evaluating alternative methods of fire and life safety per R. 71-8300.10 except as modified by these regulations.

The requirements of NFPA 102, Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures, shall be used as referenced within the adopted ICC codes for fire prevention and life safety for all tents and membrane structures normally used in South Carolina except as modified by these regulations.

The requirements of NFPA 160, Standard for the Use of Flame Effects Before an Audience, including Annexes B and C, shall be used as referenced within the adopted ICC codes for all flame effects use in proximate audience pyrotechnics displays or motion picture special effects in South Carolina except as modified by these regulations.

SUBARTICLE 1 - FIRE PREVENTION AND LIFE SAFETY
S. The requirements of NFPA 407, Standard for Aircraft Fuel Servicing, shall be used as referenced within the adopted ICC codes for the storing, handling, and dispensing of flammable and combustible liquids at private aircraft fueling facilities in South Carolina except as modified by these regulations.

T. The requirements of NFPA 409, Standard on Aircraft Hangars, shall be used as referenced within the adopted ICC codes for the design construction, occupancy, and use of aircraft hangars in South Carolina except as modified by these regulations.

U. The requirements of NFPA 495, Explosive Materials Code, shall be used as referenced within the adopted ICC codes for the manufacture, transportation, use and storage for all explosives in South Carolina, except as modified herein.

V. The requirements of NFPA 1122, Code for Model Rocketry, shall be used as referenced within the adopted ICC codes for model rocketry associated with public firework displays or proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

W. The requirements of NFPA 1123, Code for Fireworks Display, including Annex A and E, shall be used as referenced within the adopted ICC codes for all firework displays in South Carolina except as modified by these regulations.

X. The requirements of NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, shall be used as referenced within the adopted ICC codes for transportation, storage, and use of all display fireworks and pyrotechnic articles used for proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

Y. The requirements of NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience, including Annexes A, B, and D, shall be used as referenced within the adopted ICC codes for all proximate audience displays in South Carolina except as modified by these regulations.

Z. The requirements of NFPA 1127, Code for High Power Rocketry, shall be used as referenced within the adopted ICC codes for all high power rockets used for proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

AA. The requirements of NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting, shall be used as referenced within the adopted ICC codes for water supplies for rural fire fighting in South Carolina except as modified by these regulations.

BB. The OSFM shall post and maintain a list of the currently adopted editions of the codes and standards listed above on the OSFM website.

CC. The codes and standards listed in R.71-8300.2 that are adopted by the OSFM shall be accessible for viewing at no cost to the public through the OSFM website.

71-8300.3. Alternate Materials and Alternate Methods of Construction.

A. The requirements of these regulations are not intended to prevent the use of any material or method of construction not specifically prescribed by the regulations, adopted codes, or standards enforced by the OSFM. The SFM has the authority to accept alternative methods of compliance within the intent of these regulations, after finding that the materials and method of work offered is for the purpose intended, at least the equivalent of that prescribed in these regulations in quality, strength, effectiveness, fire resistance, durability, and safety. The SFM shall require submission of sufficient evidence or proof to substantiate any claim made regarding use of alternative materials and methods.

B. Compliance with applicable standards of the National Fire Protection Association, or other nationally recognized fire safety standards, may be used for consideration of alternative methods if found suitable by the SFM.
71-8300.4. Construction Documents and Shop Drawings.

A. Construction documents and/or shop drawings, as appropriate, must be submitted to the OSFM for the following:

2. LP-Gas systems per R.71-8304.
4. Facilities that the OSFM is contractually obligated to review.

B. Construction documents. Construction documents and shop drawings shall be in accordance with this section.

1. Submittals. Construction documents and supporting data shall be submitted in one complete set with each application for a review and in such form and detail as required by the OSFM reviewer to be able to determine compliance.

2. The construction documents and shop drawings shall be prepared by the appropriate registered design professional(s) or other LLR licensee as required by statute or regulation.
   c. Fire sprinkler system documentation shall be prepared in accordance with the specific provisions in S.C. Code Ann. Sections 40-10-250 and 40-10-260.

3. The OSFM is authorized to not require the submission of construction documents and supporting data if:
   a. they are not required to be prepared by a registered design professional, and
   b. it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

4. Examination of documents. OSFM shall examine or cause to be examined the submitted construction documents and shall ascertain by such examinations whether the work indicated and described is in accordance with the applicable requirements.

5. Information on construction documents. Construction documents shall be drawn to scale upon suitable material. Electronic media documents are allowed to be submitted when approved by the OSFM. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of these regulations and other relevant laws, rules and regulations as determined by the OSFM.
   a. Fire protection system shop drawings. Shop drawings for fire protection system(s) reviewed by OSFM shall be submitted to indicate compliance with these regulations and the referenced codes and standards, and shall be approved prior to the start of installation. Shop drawings shall contain all information as required by the applicable statutes, regulations, adopted codes and referenced installation standards.
   b. Information on construction documents shall be specific, and the technical codes shall not be cited in whole or in part, nor shall the term “legal” or its equivalent to be used as a substitute for specific information.
   c. All drawings shall bear a title block with complete, legible information indicating at a minimum where applicable: project name, project address, drawing author, drawing title, drawing number, original drawing date, all subsequent drawing revision dates, sequential drawing revision numbers, company name, and company mailing address.

6. Applicant responsibility. It shall be the responsibility of the applicant to ensure that the construction documents include all of the fire protection requirements and the shop drawings are complete and in compliance with the applicable statutes, regulations, codes and standards.
7. **Approved documents.** Construction documents approved by the OSFM are approved with the intent that such construction documents comply in all respects with this code. Review and approval by the OSFM shall not relieve the applicant of the responsibility of compliance with this code.

   a. **Phased approval.** The OSFM is authorized to issue approval for the construction of part of a structure, system or operation before the construction documents for the whole structure, system or operation have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such approval for parts of a structure, system or operation shall proceed at the holder’s own risk with the building operation and without assurance that approval for the entire structure, system or operation will be granted.

   b. **Compliance with code.** The issuance or granting of approval shall not be construed to be an approval of any violation of any of the provisions of these regulations. Approvals presuming to give authority to violate or cancel the provisions of these regulations shall not be valid. The issuance of approval based on construction documents and other data shall not prevent an AHJ 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 AHJ, as evidenced by the issuance of a new or amended approval.

8. **Corrected documents.** Where field conditions necessitate any substantial change from the approved construction documents, the AHJ shall have the authority to require the corrected construction documents to be submitted for approval.

9. **Revocation.** The OSFM is authorized to revoke approval issued under the provisions of these regulations 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 or shop drawings on which the permit or approval was based including, but not limited to, any one of the following:

   a. The permit or approval is used for a location or establishment other than that for which it was issued.

   b. The permit or approval is used for a condition or activity other than that listed in the permit.

   c. Conditions and limitations set forth in the permit or approval have been violated.

   d. 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.

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

   f. Failure, refusal, or neglect to comply with orders or notices duly served in accordance with the provisions of this regulation within the time provided therein.

   g. The permit or approval was issued in error or in violation of a statute, regulation, code, or standard.
71-8300.5. Incident Reporting.

A. Purpose. These provisions are intended to help the State and its local governmental entities to develop fire reporting and analysis capability for their own uses, to obtain data that can be used to more accurately assess and subsequently combat the fire problem at the State or local level, and to support the efforts of the National Fire Data Center in the United States Fire Administration (USFA) to gather and analyze information on the magnitude of the nation’s fire problem, as well as its detailed characteristics and trends.

B. The local fire chief or his designee shall furnish to the OSFM the following information:

1. Fire fatalities from fires occurring within the fire department’s jurisdiction, shall be reported directly to the OSFM immediately.

2. Firefighter line-of-duty deaths shall be reported directly to the OSFM immediately.

3. By the 15th day of each month, information concerning all incidents responded to by the fire department during the preceding month shall be reported. This information shall be reported by a method and in a format approved by the OSFM. The National Fire Incident Reporting System (NFIRS) shall serve as the minimum standard reporting method and format for these monthly reports.

C. These reports are privileged against liability unless the report is made with actual malice.

71-8300.6. Fire Investigations.

A. Purpose.

1. The intent of this section is to assist OSFM in improving its ability to provide fire prevention and fire education efforts and data; and, to support OSFM licensing and permitting functions.

2. It is not the intent of this section for OSFM to perform criminal investigation functions which overlap the authority and responsibility of police and other enforcement agencies.

B. The OSFM shall have the authority to investigate the cause, origin, and circumstances of any fire, explosion or other hazardous condition.

C. Information that could be related to trade secrets or processes shall not be made part of the public record, except as directed by a court of law.