

**Virginia Fire Services Board and Board of Housing and Community Development
STATEWIDE FIRE PREVENTION CODE DEVELOPMENT COMMITTEE
2015 CODE CHANGE CYCLE – BOOK 1
September 19, 2016**

Opening Statement

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**VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
2015 VIRGINIA STATEWIDE FIRE PREVENTION CODE BASE DOCUMENT**

Summary – This document is compiled by staff of the State Building Codes Office of the Division of Building and Fire Regulation. Its purpose is to convert the 2012 SFPC to the 2015 SFPC by comparing the language in the 2012 SFPC to the 2015 editions of the International Codes and standards which have amendments in the SFPC. It is not intended to create substantive changes to the 2012 SFPC. Those differences between the 2012 International Codes and standards and the 2015 International Codes and standards which are not affected by existing state amendments to the 2012 International Codes and standards are not addressed in this document. Those differences may be addressed in the full code change process for the 2015 SFPC. The base document is simply to make those necessary changes to the 2012 SFPC to bring in the 2015 International Codes and standards and keep the existing state amendments which were made to the 2012 International Codes and standards. If the 2015 International Codes and standards have language that is consistent with an existing state amendment to the 2012 International Codes and standards, then the existing state amendment is deleted. The staff document is intended to serve as the basis for the publishing of proposed regulations for the 2015 SFPC. Once the base document is approved by the Board of Housing and Community Development (and the Fire Services Board as per the agreement between the two boards), if any code change proposals are considered and approved by the Board of Housing and Community Development (and the Fire Services Board as per the agreement between the two boards) to also go into the proposed regulations for the 2015 SFPC, those proposals would be correlated with this base document and brought back to the Board of Housing and Community Development (and the Fire Services Board as per the agreement between the two boards) as a separate “proposed regulations” document for review.

Part I

General Regulations

13VAC5-51-11. Chapter 1, Administration; Section 101.0. Scope.

A. 101.1- Title; These regulations shall be known as the Virginia Statewide Fire Prevention Code (SFPC), hereinafter referred to as "this code" or "SFPC." The term "chapter" means a chapter in the SFPC. The SFPC was cooperatively developed by the Virginia Fire Services Board and the Virginia Board of Housing and Community Development.

B. 101.2- Scope; The SFPC prescribes regulations affecting or relating to maintenance of structures, processes and premises and safeguards to be complied with for the protection of life and property from the hazards of fire or explosion and for the handling, storage and use of fireworks, explosives or blasting agents, and provides for the administration and enforcement of such regulations. The SFPC also establishes regulations for obtaining permits for the manufacturing, storage, handling, use, or sales of explosives. Inspections under the SFPC are a governmental responsibility.

C. 101.3- Purpose; The purposes of the SFPC are to provide for statewide standards to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling, and use of substances, materials and devices, including explosives and blasting agents, wherever located.

D. 101.4- Validity; To the extent that any provisions of the SFPC or the referenced codes or standards are not within the scope of this chapter, those provisions are considered to be invalid. When any provision of the SFPC is found to be in conflict with the USBC, OSHA, or statute, that provision of the SFPC shall become invalid.

E. 101.5- Local regulations; Any local governing body may adopt fire prevention regulations that are more restrictive or more extensive in scope than the SFPC provided such regulations do not affect the manner of construction or materials to be used in the erection, alteration, repair, or use of a building or structure, as provided in the USBC, including the voluntary installation of smoke alarms and regulation and inspections thereof in commercial buildings where such smoke alarms are not required under the provisions of the SFPC.

F. 101.6- Nonresidential farm structures; Farm structures not used for residential purposes are exempt from the SFPC except when the inspection and enforcement provisions of the code are exercised by a warrant issued under the authority of §§ 27-98.2 through 27-98.5 of the Code of Virginia.

13VAC5-51-20. [Repealed]

13VAC5-51-21. Section 102-~~0~~. Applicability.

A. 102.1- General: The provisions of the SFPC shall apply to all matters affecting or relating to structures, processes and premises as set forth in Section 101-~~0~~. The SFPC shall supersede any fire prevention regulations previously adopted by a local government or other political subdivision.

B. 102.1.1- Changes: No change shall be made in the use or occupancy of any structure that would place the structure in a different division of the same group of occupancies, unless such structure is made to comply with the requirements of this code and the USBC.

C. 102.2- Application to pre-1973 buildings and structures: Buildings and structures constructed prior to the USBC (1973) shall comply with the maintenance requirements of the SFPC to the extent that equipment, systems, devices, and safeguards which were provided and approved when constructed shall be maintained. Such buildings and structures, if subject to the state fire and public building regulations (Virginia Public Building Safety Regulations, VR 394-01-05) in effect prior to March 31, 1986, shall also be maintained in accordance with those regulations.

D. 102.3- Application to post-1973 buildings and structures: Buildings and structures constructed under any edition of the USBC shall comply with the maintenance requirements of the SFPC to the extent that equipment, systems, devices, and safeguards which were provided and approved when constructed shall be maintained.

E. 102.4- Referenced codes and standards: The codes and standards referenced in the IFC shall be those listed in Chapter 80 and considered part of the requirements of the SFPC to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

F. 102.5- State-owned buildings and structures: The SFPC shall be applicable to all state-owned buildings and structures in the manner and extent described in § 27-99 of the Code of Virginia and the State Fire Marshal shall have the authority to enforce this code in state-owned buildings and structures as is prescribed in §§ 27-98 and 27-99 of the Code of Virginia.

G. 102.6- Relationship to USBC: In accordance with §§ 27-34.4, 36-105.1 and 36-119.1 of the Code of Virginia, the USBC does not supersede the provisions of this code that prescribe standards to be complied with in existing buildings and structures, provided that this code shall not impose requirements that are more restrictive than those of the USBC under which the buildings or structures were constructed. Subsequent alteration, enlargement, rehabilitation, repair or conversion of the occupancy classification of such buildings and structures shall be subject to the construction and rehabilitation provisions of the USBC. Inspection of buildings other than state-owned buildings under construction and the review and approval of building plans for these structures for enforcement of the USBC shall be the sole responsibility of the appropriate local building inspectors.

Upon completion of such structures, responsibility for fire safety protection shall pass to the local fire marshal or official designated by the locality to enforce this code in those localities that enforce the SFPC or to the State Fire Marshal in those localities that do not enforce this code.

H. 102.7- Inspections for USBC requirements: The fire official shall require that existing structures subject to the requirements of the applicable retrofitting provisions relating to the fire protection equipment and system requirements of the USBC, Part I, Construction, Section 103.7, comply with the provisions located therein.

13VAC5-51-30. [Repealed]

13VAC5-51-31. Section 103-~~0~~. Incorporation by reference.

A. 103.1- General: The following document is adopted and incorporated by reference to be an enforceable part of the SFPC:

The International Fire Code – ~~2012~~ 2015 Edition, hereinafter referred to as "IFC," published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070, 1-888 422-7233.

B. 103.1.1- Deletion: Delete IFC Chapter 1.

C. 103.1.2- Appendices: The appendices in the IFC are not considered part of the IFC for the purposes of Section 103.1.

Note: Section 101.5 references authority contained in the Code of Virginia for local fire prevention regulations that may be evaluated by localities to determine whether provisions in the IFC appendices may be considered for local fire prevention regulations.

D. 103.2- Amendments: All requirements of the referenced codes and standards that relate to fees, non-operational permits not specifically required by Section 107.2, unsafe notices, disputes, condemnation, inspections, scope of enforcement and all other procedural, and administrative matters are deleted and replaced by the provisions of Chapter 1 of the SFPC.

Exception: The scope of referenced codes and standards referenced by the SFPC that relate to the maintenance, testing and inspection requirements or limitations shall be enforceable.

E. 103.2.1- Other amendments: The SFPC contains provisions adopted by the Virginia Board of Housing and Community Development (BHCD), some of which delete, change or amend provisions of the IFC and referenced standards. Where conflicts occur between such changed provisions and the unchanged provisions of the IFC and referenced standards, the provisions changed by the BHCD shall govern.

Note: The IFC and its referenced standards contain some areas of regulation outside of the scope of the SFPC, as established by the BHCD and under state law. Where conflicts have been readily noted, changes have been made to the IFC and its referenced standards to bring it within the scope of authority; however, in some areas, judgment will have to be made as to whether the provisions of the IFC and its referenced standards are fully applicable.

F. 103.3- International Fire Code. Retroactive fire protection system requirements contained in the IFC shall not be enforced unless specified by the USBC.

13VAC5-51-40. [Repealed]

13VAC5-51-41. Section 104.0- Enforcement.

A. 104.1- Local enforcement: Any local government may enforce the SFPC following official action by such body. The official action shall (i) require compliance with the provisions of the SFPC in its entirety or with respect only to those provisions of the SFPC relating to open burning, fire lanes, fireworks, and hazardous materials and (ii) assign enforcement responsibility to the local agency or agencies of its choice. Any local governing body may establish such procedures or requirements as may be necessary for the administration and enforcement of this code. If a local governing body elects to enforce only those provisions of the SFPC relating to open burning, it may do so in all or in any designated geographic areas of its jurisdiction. The terms "enforcing agency" and "fire official" are intended to apply to the agency or agencies to which responsibility for enforcement of the SFPC has been assigned. The terms "building official" or "building department" are intended to apply only to the local building official or local building department.

B. 104.1.1- Enforcement of fireworks provisions by law-enforcement officers: In accordance with § 27-100.1 of the Code of Virginia, law-enforcement officers who are otherwise authorized to enforce certain provisions of this code shall not be subject to the certification requirements of Section 105.2 or 105.3.2.

C. 104.2- State enforcement: In accordance with § 27-98 of the Code of Virginia, the State Fire Marshal shall also have the authority, in cooperation with any local governing body, to enforce the SFPC. The State Fire Marshal shall also have authority to enforce the SFPC in those jurisdictions in which the local governments do not enforce the SFPC and may establish such procedures or requirements as may be necessary for the administration and enforcement of the SFPC in such jurisdictions.

D. 104.3- State structures: Every agency, commission or institution of this Commonwealth, including all institutions of higher education, shall permit, at all reasonable hours, the fire official reasonable access to existing structures or a

structure under construction or renovation, for the purpose of performing an informational and advisory fire safety inspection. The fire official is permitted to submit, subsequent to performing such inspection, his findings and recommendations, including a list of corrective actions necessary to ensure that such structure is reasonably safe from the hazards of fire, to the appropriate official of such agency, commission, or institution and the State Fire Marshal. Such agency, commission or institution shall notify, within 60 days of receipt of such findings and recommendations, the State Fire Marshal and the fire official of the corrective measures taken to eliminate the hazards reported by the fire official. The State Fire Marshal shall have the same power in the enforcement of this section as is provided for in § 27-98 of the Code of Virginia. The State Fire Marshal may enter into an agreement as is provided for in § 9.1-208 of the Code of Virginia with any local enforcement agency that enforces the SFPC to enforce this section and to take immediate enforcement action upon verification of a complaint of an imminent hazard such as a chained or blocked exit door, improper storage of flammable liquids, use of decorative materials, and overcrowding.

13VAC5-51-50. [Repealed]

13VAC5-51-51. Section 105-~~0~~: Enforcing agency.

A. 105.1- Fire official~~;~~ Each enforcing agency shall have an executive official in charge, hereinafter referred to as the "fire official."

Note: Fire officials are subject to sanctions in accordance with the Virginia Certification Standards (13VAC5-21).

B. 105.1.1- Appointment~~;~~ The fire official shall be appointed in a manner selected by the local government having jurisdiction. After permanent appointment, the fire official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority.

C. 105.1.2- Notification of appointment~~;~~ The appointing authority of the local governing body shall notify the DHCD and the State Fire Marshal's Office (SFMO) within 30 days of the appointment or release of the permanent or acting fire official.

D. 105.1.3- Qualifications~~;~~ The fire official shall have at least five years of fire-related experience as a firefighter, fire officer, licensed professional engineer or architect, fire or building inspector, contractor or superintendent of fire protection-related or building construction or at least five years of fire-related experience after obtaining a degree in architecture or engineering, with at least three years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The fire official shall have general knowledge of sound engineering practice with respect to the design and construction of structures, the basic principles of fire prevention and protection, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

E. 105.2- Certification~~;~~ The permanent or acting fire official shall obtain certification from the BHCD in accordance with the Virginia Certification Standards (13VAC5-21) within one year after permanent or acting appointment.

Exception: A fire official appointed prior to April 1, 1994, continuously employed by the same local governing body as the fire official shall comply with required DHCD training under the Virginia Certification Standards (13VAC5-21).

F. 105.2.1- Noncertified fire official~~;~~ Except for a fire official exempt from certification under the exception to Section 105.2, any acting or permanent fire official who is not certified as a fire official in accordance with the Virginia Certification Standards (13VAC5-21) shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 105.2.

G. 105.3- Technical assistant~~;~~ The local governing body or its designee may utilize one or more technical assistants who, in the absence of the fire official, shall have the powers and perform the duties of the fire official.

Note: Technical assistants are subject to sanctions in accordance with the Virginia Certification Standards (13VAC5-21).

H. 105.3.1- Notification: The fire official shall notify the DHCD within 60 days of the employment, contract or termination of all technical assistants for enforcement of the SFPC.

I. 105.3.2- Qualifications: A technical assistant shall have at least three years of experience and general knowledge in at least one of the following areas: fire protection, firefighting, electrical, building, plumbing or mechanical trades. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The locality may establish additional qualification requirements.

J. 105.3.3- Certification: All technical assistants employed by or under contract to an enforcing agency for enforcing the SFPC shall be certified in the appropriate subject area in accordance with the Virginia Certification Standards (13VAC5-21) within one and one-half years after permanent or acting appointment. When required by a locality to have two or more certifications, the remaining certifications shall be obtained within three years from the date of such requirement.

Exception: Any technical assistant continuously employed by or continuously under contract to the same enforcing agency for enforcing the SFPC since before April 1, 1994, shall be exempt from the provisions of this section; however, such exempt technical assistant shall comply with required DHCD training under Virginia Certification Standards (13VAC5-21).

~~K. 105.4- Continuing education: Fire officials and technical assistants enforcing the SFPC shall attend periodic training courses as designated by the DHCD.~~

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the Virginia Certification Standards (13VAC5-21).

~~L. K. 105.5- Control of conflict of interest: The standards of conduct for officials and employees of the enforcing agency shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.~~

13VAC5-51-60. [Repealed]

13VAC5-51-61. Section 106.0- Duties and powers of the fire official.

A. 106.1- General: The fire official shall enforce the provisions of the SFPC as provided herein and as interpreted by the State ~~Building Code Technical Review Board (TRB)~~ in accordance with § 36-118 of the Code of Virginia.

B. 106.2- Delegation of duties and powers: The fire official may delegate duties and powers subject to any limitations imposed by the local governing body. The fire official shall be responsible that any powers and duties delegated are carried out in accordance with this code.

C. 106.3- Inspections: The fire official is authorized to conduct such inspections as are deemed necessary to determine the extent of compliance with the provisions of this code and to approve reports of inspection by approved agencies or individuals in accordance with the fire official's written policy. All reports of such inspections by approved agencies or individuals shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such approved agency or by the responsible individual. The fire official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues in accordance with local policies.

D. 106.3.1- Observations: When, during an inspection, the fire official or an authorized representative observes an apparent or actual violation of another law, ordinance or code not within the official's authority to enforce, such official shall report the findings to the official having jurisdiction in order that such official may institute the necessary measures.

E. 106.4- Alternatives: The SFPC provisions are not intended to prevent the use of any safeguards used to protect life and property from the hazards of fire or explosion that are not specifically prescribed by the SFPC, provided that such alternative safeguards comply with the intent of the SFPC. The alternative safeguard offered shall be, for the purpose

intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

F. 106.5- Modifications: The fire official may grant modifications to any provision of the SFPC upon application by the owner or the owner's agent provided the spirit and intent of the SFPC are observed and public health, welfare, and safety are assured.

Note: The current editions of many nationally recognized model codes and standards are referenced by the SFPC. Future amendments to such codes and standards do not automatically become part of the SFPC; however, the fire official should consider such amendments in deciding whether a modification request should be granted.

G. 106.5.1- Supporting data: The fire official shall require that sufficient technical data be submitted to substantiate the proposed use of any alternative. If it is determined that the evidence presented is satisfactory proof of performance for the use intended, the fire official shall approve the use of such alternative subject to the requirements of this code. The fire official may require and consider a statement from a professional engineer, architect or other competent person as to the equivalency of the proposed modification.

H. 106.5.2- Decision: The application for modification and the final decision of the fire official shall be in writing and shall be recorded in the permanent records of the local enforcing agency.

I. 106.6- Notices and orders: The fire official shall issue all necessary notices or orders to ensure compliance with the SFPC.

J. 106.7- Department records: The fire official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records or disposed of in accordance with General Schedule Number Ten available from The Library of Virginia.

13VAC5-51-70. [Repealed]

13VAC5-51-71. [Repealed]

13VAC5-51-80. [Repealed]

13VAC5-51-81. Section 107.0. Permits and fees.

A. 107.1- Prior notification: The fire official may require notification prior to (i) activities involving the handling, storage or use of substances, materials or devices regulated by the SFPC; (ii) conducting processes which produce conditions hazardous to life or property; or (iii) establishing a place of assembly.

B. 107.2- Permits required: Operational permits may be required by the fire official as permitted under the SFPC in accordance with Table 107.2, except that the fire official shall require permits for the manufacturing, storage, handling, use, and sale of explosives. In accordance with Section 5601.2.3.1, an application for a permit to manufacture, store, handle, use, or sell explosives shall only be made by a designated individual.

Exception: Such permits shall not be required for the storage of explosives or blasting agents by the Virginia Department of State Police provided notification to the fire official is made annually by the Chief Arson Investigator listing all storage locations.

C. Add Table 107.2 as follows:

Table 107.2. OPERATIONAL PERMIT REQUIREMENTS (to be filled in by local jurisdiction).			
Description	Permit Required (yes or no)	Permit Fee	Inspection Fee

Aerosol products. 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.																			
Amusement buildings. An operational permit is required to operate a special amusement building.																			
Aviation facilities. 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.																			
Carnivals and fairs. An operational permit is required to conduct a carnival or fair.																			
Cellulose nitrate film. An operational permit is required to store, handle or use cellulose nitrate film in a Group A occupancy.																			
Combustible dust-producing operations. 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.																			
Combustible fibers. An operational permit is required for the storage and handling of combustible fibers in quantities greater than 100 cubic feet (2.8 m ³). Exception: An operational permit is not required for agricultural storage.																			
Compressed gas. 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 below. Exception: Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle. <div style="text-align: center;">Permit Amounts for Compressed Gases</div> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Type of Gas</th> <th style="text-align: left;">Amount (cubic feet at NTP)</th> </tr> </thead> <tbody> <tr> <td>Corrosive</td> <td>200</td> </tr> <tr> <td>Flammable (except cryogenic fluids and liquefied petroleum gases)</td> <td>200</td> </tr> <tr> <td>Highly toxic</td> <td>Any Amount</td> </tr> <tr> <td>Inert and simple asphyxiant</td> <td>6,000</td> </tr> <tr> <td>Oxidizing (including oxygen)</td> <td>504</td> </tr> <tr> <td>Pyrophoric</td> <td>Any Amount</td> </tr> <tr> <td>Toxic</td> <td>Any Amount</td> </tr> </tbody> </table> For SI: 1 cubic foot = 0.02832 m ³ .	Type of Gas	Amount (cubic feet at NTP)	Corrosive	200	Flammable (except cryogenic fluids and liquefied petroleum gases)	200	Highly toxic	Any Amount	Inert and simple asphyxiant	6,000	Oxidizing (including oxygen)	504	Pyrophoric	Any Amount	Toxic	Any Amount			
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Covered and open mall buildings. 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-fired or gas-fired equipment in the mall. 3. The use of open-flame or flame-producing equipment in the mall.																			
Cryogenic fluids. An operational permit is required to produce, store, transport on site, use, handle or dispense cryogenic fluids in excess of the amounts listed below. Exception: Operational permits are not required for vehicles equipped for and using cryogenic fluids as a fuel for propelling the vehicle or for refrigerating the lading. <div style="text-align: center;">Permit Amounts for Cryogenic Fluids</div> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Type of Cryogenic Fluid</th> <th style="text-align: left;">Inside Building (gallons)</th> <th style="text-align: left;">Outside Building (gallons)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Type of Cryogenic Fluid	Inside Building (gallons)	Outside Building (gallons)																
Type of Cryogenic Fluid	Inside Building (gallons)	Outside Building (gallons)																	

Flammable	More than 1	60			
Inert	60	500			
Oxidizing (includes oxygen)	10	50			
Physical or health hazard not indicated above	Any Amount	Any Amount			
For SI: 1 gallon = 3.785 L.					
Cutting and welding. An operational permit is required to conduct cutting or welding operations within the jurisdiction.					
Dry cleaning plants. 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.					
Exhibits and trade shows. An operational permit is required to operate exhibits and trade shows.					
Explosives, fireworks, and pyrotechnics. An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of explosive, explosive materials, fireworks, pyrotechnic special effects, or pyrotechnic special effects material within the scope of Chapter 56. Exception: Storage in Group R-3 or R-5 occupancies of smokeless propellant, black powder and small arms primers for personal use, not for resale, and in accordance with the quantity limitations and conditions set forth in Section 5601.1, exception numbers four and 12.					
Fire hydrants and valves. 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: An operational 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.					
Flammable and combustible liquids. An operational permit is required: 1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the offsite transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems. 2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following: 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire official, would cause an unsafe condition. 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days. 3. 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. To remove Class I or Class 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. 5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used. 6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days) or otherwise dispose of an underground,					

protected above-ground or above-ground flammable or combustible liquid tank. 7. 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. 8. To manufacture, process, blend or refine flammable or combustible liquids.																																																							
Floor finishing. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m ²) using Class I or Class II liquids.																																																							
Fruit and crop ripening. An operational permit is required to operate a fruit- ripening or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.																																																							
Fumigation, thermal, and insecticidal fogging. An operational permit is required to operate a business of fumigation, thermal, or insecticidal fogging and to maintain a room, vault or chamber in which a toxic or flammable fumigant is used.																																																							
Hazardous materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed below. <div style="text-align: center;">Permit Amounts for Hazardous Materials</div> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Type of Material</th> <th style="text-align: left;">Amount</th> </tr> </thead> <tbody> <tr> <td>Combustible liquids</td> <td>See flammable and combustible liquids</td> </tr> <tr> <td>Corrosive materials</td> <td></td> </tr> <tr> <td> Gases</td> <td>See compressed gases</td> </tr> <tr> <td> Liquids</td> <td>55 gallons</td> </tr> <tr> <td> Solids</td> <td>1000 pounds</td> </tr> <tr> <td>Explosive materials</td> <td>See explosives</td> </tr> <tr> <td>Flammable materials</td> <td></td> </tr> <tr> <td> Gases</td> <td>See compressed gases</td> </tr> <tr> <td> Liquids</td> <td>See flammable and combustible liquids</td> </tr> <tr> <td> Solids</td> <td>100 pounds</td> </tr> <tr> <td>Highly toxic materials</td> <td></td> </tr> <tr> <td> Gases</td> <td>See compressed gases</td> </tr> <tr> <td> Liquids</td> <td>Any amount</td> </tr> <tr> <td> Solids</td> <td>Any amount</td> </tr> <tr> <td>Oxidizing materials</td> <td></td> </tr> <tr> <td> Gases</td> <td>See compressed gases</td> </tr> <tr> <td> Liquids</td> <td></td> </tr> <tr> <td> Class 4</td> <td>Any amount</td> </tr> <tr> <td> Class 3</td> <td>1 gallon ^a</td> </tr> <tr> <td> Class 2</td> <td>10 gallons</td> </tr> <tr> <td> Class 1</td> <td>55 gallons</td> </tr> <tr> <td> Solids</td> <td></td> </tr> <tr> <td> Class 4</td> <td>Any amount</td> </tr> <tr> <td> Class 3</td> <td>10 pounds ^b</td> </tr> <tr> <td> Class 2</td> <td>100 pounds</td> </tr> </tbody> </table>	Type of Material	Amount	Combustible liquids	See flammable and combustible liquids	Corrosive materials		Gases	See compressed gases	Liquids	55 gallons	Solids	1000 pounds	Explosive materials	See explosives	Flammable materials		Gases	See compressed gases	Liquids	See flammable and combustible liquids	Solids	100 pounds	Highly toxic materials		Gases	See compressed gases	Liquids	Any amount	Solids	Any amount	Oxidizing materials		Gases	See compressed gases	Liquids		Class 4	Any amount	Class 3	1 gallon ^a	Class 2	10 gallons	Class 1	55 gallons	Solids		Class 4	Any amount	Class 3	10 pounds ^b	Class 2	100 pounds			
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Class 1	500 pounds			
Organic peroxides				
Liquids				
Class I	Any amount			
Class II	Any amount			
Class III	1 gallon			
Class IV	2 gallons			
Class V	No permit required			
Solids				
Class I	Any amount			
Class II	Any amount			
Class III	10 pounds			
Class IV	20 pounds			
Class V	No permit required			
Pyrophoric materials				
Gases	See compressed gases			
Liquids	Any amount			
Solids	Any amount			
Toxic materials				
Gases	See compressed gases			
Liquids	10 gallons			
Solids	100 pounds			
Unstable (reactive) materials				
Liquids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	5 gallons			
Class 1	10 gallons			
Solids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	50 pounds			
Class 1	100 pounds			
Water reactive materials				
Liquids				
Class 3	Any amount			
Class 2	5 gallons			
Class 1	55 gallons			
Solids				
Class 3	Any amount			
Class 2	50 pounds			
Class 1	500 pounds			
For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg.				

<p>a. Twenty gallons when 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.</p> <p>b. Two hundred pounds when 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.</p>			
HPM facilities. An operational permit is required to store, handle or use hazardous production materials.			
High piled storage. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m ²).			
<p>Hot work operations. An operational permit is required for hot work including, but not limited to:</p> <ol style="list-style-type: none"> 1. Public exhibitions and demonstrations where hot work is conducted. 2. Use of portable hot work equipment inside a structure. <p>Exception: Work that is conducted under a construction permit.</p> <ol style="list-style-type: none"> 3. Fixed-site hot work equipment such as welding booths. 4. Hot work conducted within a hazardous fire area. 5. Application of roof coverings with the use of an open-flame device. 6. When approved, the fire 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 this chapter. These permits shall be issued only to their employees or hot work operations under their supervision. 			
Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.			
Lumber yards and woodworking plants. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft ³) (236 m ³).			
Liquid-fueled or gas-fueled vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid-fueled or gas-fueled vehicles or equipment in assembly buildings.			
<p>LP-gas. An operational permit is required for:</p> <ol style="list-style-type: none"> 1. Storage and use of LP-gas. <p>Exception: An operational permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3.</p> <ol style="list-style-type: none"> 2. Operation of cargo tankers that transport LP-gas. 			
Magnesium. An operational permit is required to melt, cast, heat treat or grind more than 10 pounds (4.54 kg) of magnesium.			
Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2,500 cubic feet (71 m ³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.			
<p>Open burning. 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.</p> <p>Exception: Recreational fires.</p>			
Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.			
Open flames and torches. 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.			
Organic coatings. 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.			
Places of assembly. An operational permit is required to operate a place of assembly.			
Private fire hydrants. An operational permit is required for the removal from service, use or operation of private fire hydrants. Exception: An operational permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.			
Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.			
Pyroxylin plastics. 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.			
Refrigeration equipment. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.			
Repair garages and service stations. An operational permit is required for operation of repair garages and automotive, marine and fleet service stations.			
Rooftop heliports. An operational permit is required for the operation of a rooftop heliport.			
Spraying or dipping. 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.			
Storage of scrap tires and tire byproducts. 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 ³) of total volume of scrap tires and for indoor storage of tires and tire byproducts.			
Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent. Exceptions: 1. Tents used exclusively for recreational camping purposes. 2. Tents and air-supported structures that cover an area of 900 square feet (84 m ²) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.			
Tire-rebuilding plants. An operational permit is required for the operation and maintenance of a tire-rebuilding plant.			
Waste handling. An operational permit is required for the operation of wrecking yards, junk yards and waste material-handling facilities.			
Wood products. An operational permit is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m ³).			

D. 107.3- Application for permit: Application for a permit shall be made on forms prescribed by the fire official.

E. 107.4- Issuance of permits: Before a permit is issued, the fire official shall make such inspections or tests as are necessary to assure that the use and activities for which application is made comply with the provisions of this code.

F. 107.5- Conditions of permit: A permit shall constitute permission to store or handle materials or to conduct processes in accordance with the SFPC, and shall not be construed as authority to omit or amend any of the provisions of this code. Permits shall remain in effect until revoked or for such period as specified on the permit. Permits are not transferable.

G. 107.6- Annual: The enforcing agency may issue annual permits for the manufacturing, storage, handling, use, or sales of explosives to any state regulated public utility.

H. 107.7- Approved plans: Plans approved by the fire official are approved with the intent that they comply in all respects to this code. Any omissions or errors on the plans do not relieve the applicant of complying with all applicable requirements of this code.

I. 107.8- Posting: Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

J. 107.9- Suspension of permit: A permit shall become invalid if the authorized activity is not commenced within six months after issuance of the permit, or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

K. 107.10- Local fees: In accordance with § ~~27-97~~ 27-98 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement and appeals under the SFPC. However, for the City of Chesapeake no fee charged for the inspection of any place of religious worship designated as Assembly Group A-3 shall exceed \$50. For purposes of this section, "defray the cost" may include the fair and reasonable costs incurred for such enforcement during normal business hours, but shall not include overtime costs, unless conducted outside of the normal working hours established by the locality. A schedule of such costs shall be adopted by the local governing body in a local ordinance. A locality shall not charge an overtime rate for inspections conducted during the normal business hours established by the locality. Nothing herein shall be construed to prohibit a private entity from conducting such inspections, provided the private entity has been approved to perform such inspections in accordance with the written policy of the fire official for the locality.

L. 107.11- State Fire Marshal's office permit fees for explosives, blasting agents, theatrical flame effects, and fireworks: Except as modified herein, applications for firework or pyrotechnic displays shall be submitted to and received by the State Fire Marshal's office not less than 15 days prior to the planned event. State Fire Marshal's Office permit fees shall be as follows:

1. \$150 per year per magazine to store explosives and blasting agents.
2. \$250 per year per city or county to use explosives and blasting agents.
3. \$200 per year to sell explosives and blasting agents.
4. \$250 per year to manufacture explosives, blasting agents and fireworks.
5. \$350 the first day of fireworks, pyrotechnics or proximate audience displays conducted in any state-owned building and \$150 per day for each consecutive day for identical multi-day events. If an application is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$150 per day for each consecutive day for identical multi-day events. If an application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi-day events.
6. \$250 the first day of fireworks, pyrotechnics or proximate audience displays conducted out-of-doors on any state-owned property and \$150 per day for each consecutive day for identical multi-day events. If an application is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$150 per day for each consecutive day for identical multi-day events. If an application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi-day events.
7. \$100 per nonrenewable permit, valid for one week from the date of issuance, for the use of explosives in special operations or emergency conditions.

8. \$300 the first day for flame effects conducted in accordance with Section 308.3.2 indoors of any state-owned building or outdoors on state-owned property and \$200 per day for each consecutive day for identical multi-day events, or, if conducted as part of a firework (pyrotechnic) display, \$150 the first day and \$125 per day for each consecutive day for identical multi-day events. If an application for flame effects is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$200 per day for each consecutive day for identical multi-day events or, if conducted as part of a firework (pyrotechnic) display, \$200 the first day and \$100 per day for each consecutive day for identical multi-day events. If an application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi-day events or, if conducted as part of a firework (pyrotechnic) display, \$300 the first day and \$125 per day for each consecutive day for identical multi-day events.

Exception: Permits shall not be required for the storage of explosives or blasting agents by the Virginia Department of State Police provided notification to the State Fire Marshal is made annually by the Chief Arson Investigator listing all storage locations within areas where enforcement is provided by the State Fire Marshal's office.

M. 107.12. State annual compliance inspection fees: Fees for compliance inspections performed by the State Fire Marshal's office shall be as follows:

1. Nightclubs.

1.1. \$350 for occupant load of 100 or less.

1.2. \$450 for occupant load of 101 to 200.

1.3. \$500 for occupant load of 201 to 300.

1.4. \$500 plus \$50 for each 100 occupants where occupant loads exceed 300.

2. Private college dormitories with or without assembly areas. If containing assembly areas, such assembly areas are not included in the computation of square footage.

2.1. \$150 for 3500 square feet or less.

2.2. \$200 for greater than 3500 square feet up to 7000 square feet.

2.3. \$250 for greater than 7000 square feet up to 10,000 square feet.

2.4. \$250 plus \$50 for each additional 3000 square feet where square footage exceeds 10,000.

3. Assembly areas that are part of private college dormitories.

3.1. \$50 for 10,000 square feet or less provided the assembly area is within or attached to a dormitory building.

3.2. \$100 for greater than 10,000 square feet up to 25,000 square feet provided the assembly area is within or attached to a dormitory building, such as gymnasiums, auditoriums or cafeterias.

3.3. \$100 for up to 25,000 square feet provided the assembly area is in a separate or separate buildings such as gymnasiums, auditoriums or cafeterias.

3.4. \$150 for greater than 25,000 square feet for assembly areas within or attached to a dormitory building or in a separate or separate buildings such as gymnasiums, auditoriums or cafeterias.

4. Hospitals.

4.1. \$300 for 1 to 50 beds.

4.2. \$400 for 51 to 100 beds.

4.3. \$500 for 101 to 150 beds.

4.4. \$600 for 151 to 200 beds.

4.5. \$600 plus \$100 for each additional 100 beds where the number of beds exceeds 200.

5. Facilities licensed by the Virginia Department of Social Services based on licensed capacity as follows:

5.1. \$50 for 1 to 8.

5.2. \$75 for 9 to 20.

5.3. \$100 for 21 to 50.

5.4. \$200 for 51 to 100.

5.5. \$300 for 101 to 150.

5.6. \$400 for 151 to 200.

5.7. \$500 for 201 or more.

Exception: Annual compliance inspection fees for any building or groups of buildings on the same site may not exceed \$2500.

6. Registered complaints.

6.1. No charge for first visit (initial complaint), and if violations are found.

6.2. \$51 per hour for each State Fire Marshal's office staff for all subsequent visits.

7. Bonfires (small and large) on state-owned property.

7.1. For a small bonfire pile with a total fuel area more than 3 feet in diameter and more than 2 feet in height, but not more than 9 feet in diameter and not more than 6 feet in height, the permit fee is \$50. If an application for a bonfire permit is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$100. If an application for a bonfire permit is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$150.

7.2. For a large bonfire pile with a total fuel area more than 9 feet in diameter and more than 6 feet in height, the permit fee is \$150. If an application for a bonfire permit is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$300. If an application for a bonfire permit is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$450.

N. 107.13- Fee schedule: The local governing body may establish a fee schedule. The schedule shall incorporate unit rates, which may be based on square footage, cubic footage, estimated cost of inspection or other appropriate criteria.

O. 107.14- Payment of fees: A permit shall not be issued until the designated fees have been paid.

Exception: The fire official may authorize delayed payment of fees.

P. 107.14.1- State Fire Marshal's office certification and permit fees not refundable: No refund of any part of the amount paid as a permit or certification fee will be made where the applicant, permit or certification holder, for any reason, discontinued an activity, changed conditions, or changed circumstances for which the permit or certification was issued. However, the permit or certification fee submitted with an application will be refunded if the permit or

certification is canceled, revoked, or suspended subsequent to having been issued through administrative error, or if a permit being applied for is to be obtained from a locally appointed fire official.

13VAC5-51-85. Section 108-~~0~~: Operational permits.

A. 108.1- General. Operational permits shall be in accordance with Section 108. The fire official may require notification prior to (i) activities involving the handling, storage or use of substances, materials or devices regulated by the SFPC; (ii) conducting processes which produce conditions hazardous to life or property; or (iii) establishing a place of assembly.

B. 108.1.1- Permits required. Operational permits may be required by the fire official in accordance with Table 107.2. The fire official shall require operational permits for the manufacturing, storage, handling, use and sale of explosives. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

Exceptions:

1. Operational permits will not be required by the State Fire Marshal except for the manufacturing, storage, handling, use and sale of explosives in localities not enforcing the SFPC.

2. Operational permits will not be required for the manufacturing, storage, handling or use of explosives or blasting agents by the Virginia Department of State Police provided notification to the fire official is made annually by the Chief Arson Investigator listing all storage locations.

C. 108.1.2- Duration of operational permits.

An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 108.1.1 for either:

1. A prescribed period.

2. Until renewed, suspended, or revoked.

D. 108.1.3- Operational permits for the same location. When more than one operational permit is required for the same location, the fire official is authorized to consolidate such permits into a single permit provided that each provision is listed in the permit.

E. 108.2- Application. Application for an operational permit required by this code shall be made to the fire official in such form and detail as prescribed by the fire official. Applications for permits shall be accompanied by such plans as prescribed by the fire official.

F. 108.2.1- Refusal to issue permit. If the application for an operational permit describes a use that does not conform to the requirements of this code and other pertinent laws and ordinances, the fire official shall not issue a permit, but shall return the application to the applicant with the refusal to issue such permit. Such refusal shall, when requested, be in writing and shall contain the reasons for refusal.

G. 108.2.2- Inspection authorized. Before a new operational permit is approved, the fire official is authorized to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational constraints required.

H. 108.2.3- Time limitation of application. An application for an operational permit for any proposed work or operation shall be deemed to have been abandoned six months after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the fire official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each if there is reasonable cause.

I. 108.2.4- Action on application. The fire official shall examine or cause to be examined applications for operational permits and amendments thereto within a reasonable time after filing. If the application does not conform to the

requirements of pertinent laws, the fire official shall reject such application in writing, stating the reasons. If the fire official is satisfied that the proposed work or operation conforms to the requirements of this code and laws and ordinances applicable thereto, the fire official shall issue a permit as soon as practicable.

J. 108.3- Conditions of a permit. An operational permit shall constitute permission to maintain, store or handle materials; or to conduct processes in accordance with the SFPC, and shall not be construed as authority to omit or amend any of the provisions of this code.

Note: The building official issues permits to install equipment utilized in connection with such activities or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification.

K. 108.3.1- Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked for such a period of time as specified in the permit. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

L. 108.3.2- Extensions. A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The fire official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 90 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

M. 108.3.3- Annual. The enforcing agency may issue annual operational permits for the manufacturing, storage, handling, use, or sales of explosives to any state regulated public utility.

N. 108.3.4- Suspension of permit. An operational permit shall become invalid if the authorized activity is not commenced within six months after issuance of the permit, or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

O. 108.3.5- Posting. Issued operational permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

P. 108.3.6- Compliance with code. The issuance or granting of an operational permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Operational permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on other data shall not prevent the fire official from requiring the correction of errors in the provided documents and other data. Any addition to or alteration of approved provided documents shall be approved in advance by the fire official, as evidenced by the issuance of a new or amended permit.

Q. 108.3.7- Information on the permit. The fire official shall issue all operational permits required by this code on an approved form furnished for that purpose. The operational permit shall contain a general description of the operation or occupancy and its location and any other information required by the fire official. Issued permits shall bear the original or electronic signature of the fire official or other designee approved by the fire official.

R. 108.4- Revocation. The fire official is authorized to revoke an operational permit issued under the provisions of this code when it is found by inspection or otherwise that there has been a false statement or misrepresentation as to the material facts in the application or documents on which the permit or approval was based including, but not limited to, any one of the following:

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

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

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

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

13VAC5-51-90. [Repealed]

13VAC5-51-91. Section 109-0. Inspection.

A. 109.1- Inspection: The fire official may inspect all structures and premises for the purposes of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with firefighting operations, endanger life, or any violations of the provisions or intent of the SFPC.

Exception: Single family dwellings and dwelling units in two family and multiple family dwellings and farm structures shall be exempt from routine inspections. This exemption shall not preclude the fire official from conducting routine inspections in Group R-3 or Group R-5 occupancies operating as a commercial bed and breakfast as outlined in Section 310.3 of the USBC or inspecting under § 27-98.2 of the Code of Virginia for hazardous conditions relating to explosives, flammable and combustible conditions, and hazardous materials.

B. 109.1.1- Right to entry: The fire official may enter any structure or premises at any reasonable time to inspect subject to constitutional restrictions on unreasonable searches and seizures. If entry is refused or not obtained, the fire official may pursue recourse as provided by law.

Note: Specific authorization and procedures for inspections and issuing warrants are set out in §§ 27-98.1 through 27-98.5 of the Code of Virginia and shall be taken into consideration.

C. 109.1.2- Credentials: The fire official and technical assistants shall carry proper credentials of office when inspecting in the performance of their duties under the SFPC.

D. 109.2- Coordinated inspections: The fire official shall coordinate inspections and administrative orders with any other state and local agencies having related inspection authority, and shall coordinate those inspections required by the USBC for new construction when involving provisions of the amended IFC, so that the owners and occupants will not be subjected to numerous inspections or conflicting orders.

Note: The USBC requires the building official to coordinate such inspections with the fire official.

E. 109.3- Other inspections: In accordance with § 9.1-207 of the Code of Virginia, the State Fire Marshal, upon presenting proper credentials, shall make annual inspections for hazards incident to fire in all (i) residential care facilities operated by any state agency, (ii) assisted living facilities licensed or subject to licensure pursuant to Chapter 18 (§ 63.2-1800 et seq.) of Title 63.2 of the Code of Virginia which are not inspected by a local fire marshal, (iii) student-residence facilities owned or operated by the public institutions of higher education in the Commonwealth, and (iv) public schools in the Commonwealth which are not inspected by a local fire marshal. In the event that any such facility or residence is found to be nonconforming to the SFPC, the State Fire Marshal or local fire marshal may petition any court of competent jurisdiction for the issuance of an injunction.

13VAC5-51-100. [Repealed]

13VAC5-51-101. Section 110-0. Unsafe conditions.

A. 110.1- General: The fire official shall order the following dangerous or hazardous conditions or materials to be removed or remedied in accordance with the SFPC:

1. Dangerous conditions which are liable to cause or contribute to the spread of fire in or on said premises, building or structure, or to endanger the occupants thereof.

2. Conditions which would interfere with the efficiency and use of any fire protection equipment.
3. Obstructions to or on fire escapes, stairs, passageways, doors or windows, which are liable to interfere with the egress of occupants or the operation of the fire department in case of fire.
4. Accumulations of dust or waste material in air conditioning or ventilating systems or grease in kitchen or other exhaust ducts.
5. Accumulations of grease on kitchen cooking equipment, or oil, grease or dirt upon, under or around any mechanical equipment.
6. Accumulations of rubbish, waste, paper, boxes, shavings, or other combustible materials, or excessive storage of any combustible material.
7. Hazardous conditions arising from defective or improperly used or installed electrical wiring, equipment or appliances.
8. Hazardous conditions arising from defective or improperly used or installed equipment for handling or using combustible, explosive or otherwise hazardous materials.
9. Dangerous or unlawful amounts of combustible, explosive or otherwise hazardous materials.
10. All equipment, materials, processes or operations which are in violation of the provisions and intent of this code.

B. 110.2- Maintenance: The owner shall be responsible for the safe and proper maintenance of any structure, premises or lot. In all structures, the fire protection equipment, means of egress, alarms, devices and safeguards shall be maintained in a safe and proper operating condition as required by the SFPC and applicable referenced standards.

C. 110.3- Occupant responsibility: If a building occupant creates conditions in violation of this code, by virtue of storage, handling and use of substances, materials, devices and appliances, such occupant shall be held responsible for the abatement of said hazardous conditions.

D. 110.4- Unsafe structures: All structures that are or shall hereafter become unsafe or deficient in adequate exit facilities or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or by reason of illegal or improper use, occupancy or maintenance or which have sustained structural damage by reason of fire, explosion, or natural disaster shall be deemed unsafe structures. A vacant structure, or portion of a structure, unguarded or open at door or window shall be deemed a fire hazard and unsafe within the meaning of this code. Unsafe structures shall be reported to the building official or building maintenance official who shall take appropriate action under the provisions of the USBC to secure abatement. Subsequently, the fire official may request the legal counsel of the local governing body to institute the appropriate proceedings for an injunction against the continued use and occupancy of the structure until such time as conditions have been remedied.

E. 110.5- Evacuation: When, in the fire official's opinion, there is actual and potential danger to the occupants or those in the proximity of any structure or premises because of unsafe structural conditions, or inadequacy of any means of egress, the presence of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases or materials, the fire official may order the immediate evacuation of the structure or premises. All notified occupants shall immediately leave the structure or premises and no person shall enter until authorized by the fire official.

F. 110.6- Unlawful continuance: Any person who refuses to leave, interferes with the evacuation of other occupants or continues any operation after having been given an evacuation order shall be in violation of this code.

Exception: Any person performing work directed by the fire official to be performed to remove an alleged violation or unsafe condition.

13VAC5-51-110. [Repealed]

13VAC5-51-111. Section 111:~~0~~ Violations.

A. 111.1: Notice: When the fire official discovers an alleged violation of a provision of the SFPC or other codes or ordinances under the fire official's jurisdiction, the fire official shall prepare a written notice citing the section allegedly violated, describing the condition deemed unsafe and specifying time limitations for the required abatements to be made to render the structure or premises safe and secure.

B. 111.1.1: Right of appeal: Notices of violation issued under Section 111.1 shall indicate the right of appeal by referencing the appeals section of this code.

Exceptions:

1. Summons issued in lieu of a notice of violation in accordance with Section 111.5 of this code.

2. Documents reflecting uncorrected violations in subsequent inspections to verify compliance.

C. 111.2: Service: The written notice of violation of this code shall be served upon the owner, a duly authorized agent or upon the occupant or other person responsible for the conditions under violation. Such notice shall be served either by delivering a copy of same to such persons by mail to the last known post office address, by delivering in person or by delivering it to and leaving it in the possession of any person in charge of the premises, or, in the case such person is not found upon the premises, by affixing a copy thereof in a conspicuous place at the entrance door or avenue of access. Such procedure shall be deemed the equivalent of personal notice.

D. 111.3: Failure to correct violations: If the notice of violation is not complied with within the time specified, the fire official shall request the legal counsel of the local governing body to institute the appropriate legal proceedings to restrain, correct, or abate such alleged violation.

E. 111.4: Penalty: Penalties upon conviction of violating the SFPC shall be as set out in § 27-100 of the Code of Virginia.

F. 111.5: Summons: When authorized and certified in accordance with § 27-34.2 of the Code of Virginia, the fire official may, subject to any limitations imposed by the local governing body, issue a summons in lieu of a notice of violation. Fire officials not certified in accordance with § 27-34.2 of the Code of Virginia may request the law-enforcement agency of the local governing body to make arrests for any alleged violations of the SFPC or orders affecting the immediate public safety.

13VAC5-51-120. [Repealed]

13VAC5-51-121. Section 112:~~0~~ Appeals.

A. 112.1: ~~Local Board of Fire Prevention Code Appeals (LBFPCA):~~ Each local governing body which enforces the SFPC shall have a LBFPCA to hear appeals as authorized herein or it shall enter into an agreement with the governing body of another county or municipality, with some other agency, or with a state agency approved by the DHCD to act on appeals. An appeal case decided by some other approved agency shall constitute an appeal in accordance with this section and shall be final unless appealed to the State ~~Building Code Technical~~ Review Board (~~TRB~~).

B. 112.2: Membership: The LBFPCA shall consist of at least five members appointed by the local governing body and having terms of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the local governing body. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period. The LBFPCA shall meet at least once annually to assure a duly constituted board, appoint officers as necessary and receive such training on the code as may be appropriate or necessary from staff of the locality.

C. 112.2.1: Chairman: The LBFPCA shall annually select one of its regular members to serve as chairman. In case of the absence of the chairman at a hearing, the members present shall select an acting chairman.

D. 112.2.2- Secretary: The local governing body shall appoint a secretary to the LBFPCA to maintain a detailed record of all proceedings.

E. 112.3- Qualifications of members: LBFPCA members shall be selected by the local governing body on the basis of their ability to render fair and competent decisions regarding application of the SFPC and shall, to the extent possible, represent different occupational or professional fields relating to building construction or fire prevention. At least one member should be an experienced builder and one member a licensed professional engineer or architect. Employees or officials of the local governing body shall not serve as members of the LBFPCA.

F. 112.4- Disqualification of member: A member shall not hear an appeal in which that member has conflict of interest in accordance with the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

G. 112.5- Application for appeal: The owner of a structure, the owner's agent or any other person involved in the design, construction or maintenance of the structure may appeal a decision of the fire official concerning the application of the SFPC or the fire official's refusal to grant modification under Section 106.5 to the provisions of the SFPC. The appeal shall first lie to the ~~local board of fire prevention code appeals (LBFPCA)~~ and then to the TRB State Review Board except that appeals concerning the application of the SFPC or refusal to grant modifications by the State Fire Marshal shall be made directly to the TRB State Review Board. The appeal shall be submitted to the LBFPCA within 14 calendar days of the application of the SFPC. The application shall contain the name and address of the owner of the structure and the person appealing if not the owner. A copy of the written decision of the fire official shall be submitted along with the application for appeal and maintained as part of the record. The application shall be stamped or otherwise marked by the LBFPCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of the fire official's decision.

Note: In accordance with § 27-98 of the Code of Virginia, any local fire code may provide for an appeal to a local board of appeals. If no local board of appeals exists, the TRB State Review Board shall hear appeals of any local fire code violation.

H. 112.6- Notice of meeting: The LBFPCA shall meet within 30 calendar days after the date of receipt of the application for appeal. Notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing. Less notice may be given if agreed upon by the applicant.

I. 112.7- Hearing procedures: All hearings before the LBFPCA shall be open to the public. The appellant, the appellant's representative, the local governing body's representative and any person whose interests are affected shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings.

J. 112.7.1- Postponement: When a quorum of the LBFPCA is not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing. The LBFPCA shall reschedule the appeal within 30 calendar days of the postponement.

K. 112.8- Decision: The LBFPCA shall have the power to uphold, reverse or modify the decision of the fire official by a concurring vote of a majority of those present. Decisions of the LBFPCA shall be final if no appeal is made therefrom and the appellant and the fire official shall act accordingly.

L. 112.8.1- Resolution: The LBFPCA's decision shall be by resolution signed by the chairman and retained as part of the record by the LBFPCA. The following wording shall be part of the resolution: "Any person who was a party to the appeal may appeal to the State Building Code Technical Review Board (TRB) by submitting an application to the TRB within 21 calendar days upon receipt by certified mail of this resolution. Application forms are available from the Office of the TRB State Review Board, 600 East Main Street, Richmond, Virginia 23219, (804) 371-7150." Copies of the resolution shall be furnished to all parties.

M. 112.9- Appeal to the TRB State Review Board: After final determination by the LBFPCA, any person who was a party to the local appeal may appeal to the TRB State Review Board. Application shall be made to the TRB State

Review Board within 21 calendar days of receipt of the decision to be appealed. Application for appeal to the ~~TRB~~ State Review Board arising from the SFMO's enforcement of the code or from any local fire code violation if no local board of appeals exists shall be made to the ~~TRB~~ State Review Board within 14 calendar days of receipt of the decision to be appealed and shall be accompanied by copies of the inspection reports and other relevant information. Failure to submit an application for appeal within the time limit established by this section shall constitute an acceptance of the LBFPCA's resolution or fire official's decision.

N. 112.9.1- Information to be submitted: Copies of the fire official's decision and the resolution of the LBFPCA shall be submitted with the application for appeal. Upon request by the office of the ~~TRB~~ State Review Board, the LBFPCA shall submit a copy of all inspection reports and all pertinent information from the record of the LBFPCA.

O. 112.9.2- Decision of ~~TRB~~ State Review Board. Procedures of the ~~TRB~~ State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the ~~TRB~~ State Review Board shall be final if no appeal is made therefrom and the appellant and the code official shall act accordingly.

Part II

Technical Amendments

13VAC5-51-129. Application of Part II.

The changes in this part shall be made to the model codes and standards as indicated in this chapter for use as part of the SFPC.

13VAC5-51-130. IFC Section 202.0- Definitions.

A. Add the following definitions:

Background clearance card or BCC: An identification card issued to an individual who is not a certified blaster or pyrotechnician and is responsible management or an employee of a company, corporation, firm, or other entity, solely for the purpose of submitting an application to the fire official for a permit to manufacture, use, handle, store, or sell explosive materials; or conduct a fireworks display. A person to whom a BCC has been issued can fulfill the role of a designated individual on an application for a permit to manufacture, use, handle, store, or sell explosive materials; or on an application for a permit to design, setup, and conduct a fireworks display.

Blaster, restricted: Any person engaging in the use of explosives or blasting agents utilizing five pounds (2.25 kg) or less per blasting operation and using instantaneous detonators. A certified restricted blaster can fulfill the role of a designated individual on an application for permit to manufacture, use, handle, store, or sell explosive materials.

Blaster, unrestricted: Any person engaging in the use of explosives or blasting agents without the limit to the amount of explosives or blasting agents or type of detonator. A certified unrestricted blaster can fulfill the role of a designated individual on an application for permit to manufacture, use, handle, store, or sell explosive materials.

Design: For the purposes of a fireworks display, either inside a building or structure or outdoors, it shall mean the pyrotechnician who will be in attendance and makes the final artistic determination for the placement of fireworks and ground display pieces suitable for the display site.

Designated individual: A person who is in possession of a BCC issued by the SFMO, certified by the SFMO as a pyrotechnician, or a restricted or unrestricted blaster, any of whom are responsible for ensuring compliance with state law and regulations relating to blasting agents and explosives and applying for explosives or firework permits; is at least 21 years of age; and demonstrates the capability to effectively communicate safety messages verbally and in writing in the English language.

DHCD: The Virginia Department of Housing and Community Development.

LBFPCA. Local Board of Fire Prevention Code Appeals.

Local government, local governing body or locality: The governing body of any county, city, or town, other political subdivision and state agency in this Commonwealth charged with the enforcement of the SFPC under state law.

Night club: Any building or portion thereof in which the main use is a place of public assembly that provides exhibition, performance or other forms of entertainment; serves alcoholic beverages; and provides music and space for dancing.

Permissible fireworks: Any sparklers, fountains, Pharaoh's serpents, caps for pistols, or pinwheels commonly known as whirligigs or spinning jennies.

Pyrotechnician (firework operator): Any person supervising or engaged in the design, setup, or conducting of any fireworks display, either inside a building or outdoors. A certified pyrotechnician can fulfill the role of a designated individual on an application for a permit for a fireworks display.

Pyrotechnician, aerial: A person supervising or engaged in the design, setup, or conducting of an outdoor aerial fireworks display performed in accordance with the regulations as set forth in this code and NFPA 1123, a referenced standard for fireworks displays.

Pyrotechnician, proximate: A person supervising or engaged in the design, setup, or conducting of a fireworks display, either inside a building or outdoors, performed in accordance with the regulations as set forth in this code and NFPA 1126, a referenced standard for the use of pyrotechnics before a proximate audience.

Responsible management: A person who is any of the following:

1. The sole proprietor of a sole proprietorship.
2. The partners of a general partnership.
3. The managing partners of a limited partnership.
4. The officers or directors of a corporation.
5. The managers or members of a limited liability company.
6. The managers, officers or directors of an association.
7. Individuals in other business entities recognized under the laws of the Commonwealth as having a fiduciary responsibility to the firm.

~~Sky lantern: An unmanned device with a fuel source that incorporates an open flame in order to make the device airborne.~~

Sole proprietor: A person or individual, not a corporation, who is trading under his own name or under an assumed or fictitious name pursuant to the provisions of §§ 59.1-69 through 59.1-76 of the Code of Virginia.

State Fire Marshal: The State Fire Marshal as provided for by § 9.1-206 of the Code of Virginia.

State Regulated Care Facility (SRCF): A building with an occupancy in Group R-2, R-3, R-4, or R-5 occupied by persons in the care of others where program oversight is provided by the Virginia Department of Social Services, the Virginia Department of Behavioral Health and Developmental Services, the Virginia Department of Education or the Virginia Department of Juvenile Justice.

State Review Board. The Virginia State Building Code Technical Review Board as established under § 36-108 of the Code of Virginia.

Technical Assistant: Any person employed by or under an extended contract to a local enforcing agency for enforcing the SFPC. For the purposes of this definition, an extended contract shall be a contract with an aggregate term of 18 months or longer.

~~TRB: The Virginia State Building Code Technical Review Board.~~

USBC: The Virginia Uniform Statewide Building Code (13VAC5-63).

B. Add the following definition under the term "Occupancy Classification--Residential Group R":

Residential Group R-5. Detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures. The terms "R-5" and "one and two-family dwelling" where used in this code shall be interchangeable.

C. Change the following definitions to read:

Automatic fire-extinguishing system: An approved system of devices and equipment that automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire. Such system shall include an automatic sprinkler system, unless otherwise expressly stated.

Fire code official: The officer or other designated authority charged with administration and enforcement of this code, or a duly authorized representative. For the purpose of this code, the terms "code official" and "fire official" shall have the same meaning as the term "fire code official" and, in addition, such official shall have the powers outlined in § 27-98.1 of the Code of Virginia.

Fireworks: Any firecracker, torpedo, skyrocket, or other substance or object, of whatever form or construction, that contains any explosive or inflammable compound or substance, and is intended, or commonly known, as fireworks and that explodes, rises into the air or travels laterally, or fires projectiles into the air. Fireworks shall not include automobile flares, paper caps containing not more than the average of 0.25 grain (16 mg) of explosive content per cap or toy pistols, toy canes, toy guns, or other devices utilizing such caps and items commonly known as party poppers, pop rocks, and snap-n-pops. Fireworks may be further delineated and referred to as:

Fireworks, 1.4G (formerly known as Class C, Common Fireworks): Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks that comply with the construction, chemical composition, and labeling regulations of the DOTn for Fireworks, UN0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G (formerly Class B, Special Fireworks): Large fireworks devices, which are explosive materials, intended for the use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration, or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition, and other display pieces that exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN0335 by the DOTn.

Smokeless propellants: Solid propellants, commonly referred to as smokeless powders or any propellant classified by DOTn as a smokeless propellant in accordance with NA3178, Smokeless Powder for Small Arms, used in small arms ammunition, firearms, cannons, rockets, propellant-actuated devices, and similar articles.

13VAC5-51-131. IFC Chapter 3: General Requirements.

A. Change Section 301.2 to read:

301.2: Permits. Permits shall be required as set forth in Section 107.2 for the activities or uses regulated by Sections 306, 307, 308, and 315.

B. Add Section 301.3 to read:

301.3- Occupancy. The occupancy of a structure shall be continued as originally permitted under and in full compliance with the codes in force at the time of construction or alteration. The occupancy of a structure shall not change to another occupancy that will subject the structure to any special provisions of this code or the USBC without the approval of the building official.

~~C. Add the following to the list of definitions in Section 302.1:~~

~~Sky lantern.~~

~~D. Change Section 304.3.2 to read:~~

~~304.3.2- Capacity exceeding 5.88 cubic feet. Containers with a capacity exceeding 5.88 cubic feet (44 gallons) (0.17 m³) shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or approved combustible materials.~~

~~E. D. Add an exception to Section 307.1 to read:~~

~~Exception: Approved outdoor live fire training using equipment or appliances accessible or available to the general public, and that complies with Section 307.4.~~

~~F. E. Change Section 307.2 to read:~~

~~307.2- Permit required. A permit shall be obtained from the fire code official in accordance with Section 107.2 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.~~

~~G. Add Section 308.1.6.3 to read:~~

~~308.1.6.3. Sky lanterns. No person shall release or cause to be released an untethered sky lantern.~~

~~H. F. Change Section 308.2 to read:~~

~~308.2- Permits required. Permits shall be obtained from the fire code official in accordance with Section 107.2 prior to engaging in the following activities involving open flame, fire, and burning:~~

- ~~1. Use of a torch or flame-producing device to remove paint from a structure.~~
- ~~2. Use of open flame, fire, or burning in connection with Group A or E occupancies.~~
- ~~3. Use or operation of torches and other devices, machines, or processes liable to start or cause fire in or upon wildfire risk areas.~~

~~I. G. Change Section 311.1 to read:~~

~~311.1- General. Temporarily unoccupied buildings, structures, premises, or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with Sections 311.1.1 through ~~311.5.6~~ 311.6.~~

~~J. H. Add Section 311.5.6 to read:~~

~~311.5.6- Removal. Removal of placards posted in accordance with this section without the approval of the fire official shall be a violation of this code.~~

~~K. Add Section 311.6 to read:~~

~~314.6. Unoccupied tenant spaces in mall buildings. Unoccupied tenant spaces in covered and open mall buildings shall be:~~

- ~~1. Kept free from the storage of any materials.~~
- ~~2. Separated from the remainder of the building by partitions of at least 0.5 inch thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.~~
- ~~3. Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.~~
- ~~4. Kept free from combustible waste and be broom swept clean.~~

~~L. I.~~ Change Section 314.1 to read:

314.1: General. Indoor displays constructed within any building or structure shall comply with Sections 314.2 through 314.5.

~~M. J.~~ Add Section 314.5 to read:

314.5: Smokeless powder and small arms primers. Venders shall not store, display, or sell smokeless powder or small arms primers during trade shows inside exhibition halls except as follows:

1. The amount of smokeless powder displayed by each vender is limited to the amount established in Section 5606.5.1.1.
2. The amount of smokeless powder each vender may store is limited to the storage arrangements and storage amounts established in Section 5606.5.2.1. Smokeless powder shall remain in the manufacturer's original sealed container, and the container shall remain sealed while inside the building. The repackaging of smokeless powder shall not be performed inside the building. Damaged containers shall not be repackaged inside the building and shall be immediately removed from the building in such manner to avoid spilling any powder.
3. There shall be at least 50 feet separation between venders and 20 feet from any exit.
4. Small arms primers shall be displayed and stored in the manufacturer's original packaging and in accordance with the requirements of Section 5606.5.2.3.

~~N. K.~~ Change Section 315.2 to read:

315.2: Permit required. A permit for miscellaneous combustible storage shall be required as set forth in Section 107.2.

~~O. L.~~ Change Section 315.4 to read:

315.4: Outside storage. Outside storage of combustible materials shall not be located within 10 feet (3048 mm) of a property line or other building on the site.

Exceptions:

1. The separation distance is allowed to be reduced to 3 feet (914 mm) for storage not exceeding 6 feet (1829 mm) in height.
2. The separation distance is allowed to be reduced when the fire official determines that no hazard to the adjoining property exists.

~~P. M.~~ Change Section 315.4.1 to read:

315.4.1- Storage beneath overhead projections from buildings. To the extent required by the code the building was constructed under, when buildings are required to be protected by automatic sprinklers, the outdoor storage, display, and handling of combustible materials under eaves, canopies, or other projections or overhangs is prohibited except where automatic sprinklers are installed under such eaves, canopies, or other projections or overhangs.

13VAC5-51-132. IFC Chapter 4- Emergency Planning and Preparedness.

A. Add Section 401.1.1 to read:

401.1.1- State Regulated Care Facilities. When a state license is required by the Virginia Department of Social Services; Virginia Department of Behavioral Health and Developmental Services; Virginia Department of Education; or Virginia Department of Juvenile Justice to operate, SRCF shall comply with this section and the provisions of Section 404-0.

B. ~~Change~~ Add Section ~~403~~ 403.1.1 to read:

~~Section 403-~~

~~Emergency Preparedness Requirements-~~

~~403.1. General. In addition to the requirements of Section 401, occupancies, uses and outdoor locations shall comply with the emergency preparedness requirements set forth in Sections 403.2 through 403.11. Where a fire safety and evacuation plan is required by Sections 403.2 through 403.11, evacuation drills shall be in accordance with Section 405 and employee training shall be in accordance with Section 406.~~

~~403.1.1- Maintaining occupant load posting. Occupant load postings required by the building code are required to be maintained.~~

~~403.2. Group A occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group A occupancies, other than those occupancies used exclusively for purposes of religious worship with an occupant load less than 2,000, and for buildings containing both a Group A occupancy and an atrium. Group A occupancies shall also comply with Sections 403.2.1 through 403.2.4.~~

~~403.2.1. Seating plan. In addition to the requirements of Section 404.2, the fire safety and evacuation plans for assembly occupancies shall include a detailed seating plan, occupant load and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.~~

~~403.2.2. Announcements. In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for noncontinuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.~~

~~Exception: In motion picture theaters, the announcement is allowed to be projected upon the screen in a manner approved by the fire code official.~~

C. Add Sections 403.2.2.1, 403.2.2.1.1 and 403.2.2.1.2 to read:

403.2.2.1- Night clubs. Night clubs shall comply with Sections 403.2.2.1.1 and 403.2.2.1.2.

403.2.2.1.1- Audible announcements. Audible announcements shall be made to the occupants no longer than 10 minutes prior to the start of the entertainment and at each intermission to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.

403.2.2.1.2- Occupant load count. Upon request of the fire code official, the owner or operator, or both, will be required to keep a running count of the occupant load to provide to the fire code official during performance hours of operation, entertainment hours of operation, or both.

~~403.2.3. Fire watch personnel. Fire watch personnel shall be provided where required by Section 403.11.1.~~

~~403.2.4. Crowd managers. Crowd managers shall be provided where required by Section 403.11.3.~~

~~403.3. Group B occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group B occupancy where the Group B occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.~~

~~403.4. Group E occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. Group E occupancies shall also comply with Section 403.4.1.~~

~~403.4.1. Group E occupancies. Group E occupancies shall comply with 403.4.1.1 through 403.4.1.3.~~

~~403.4.1.1. First emergency evacuation drill. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.~~

~~403.4.1.2. Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires.~~

~~403.4.1.3. Assembly points. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be arranged to keep each class separate to provide accountability of all individuals.~~

~~403.5. Group F occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group F occupancy where the Group F occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.~~

~~403.6. Group H occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group H occupancies. Group H 5 occupancies shall also comply with Section 403.6.1.~~

~~403.6.1. Group H 5 occupancies. Group H 5 occupancies shall comply with Sections 403.6.1.1 through 403.6.1.4.~~

~~403.6.1.1. Plans and diagrams. In addition to the requirements of Section 404 and Section 407.6, plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area; the amount and type of HPM stored, handled and used; locations of shutoff valves for HPM supply piping; emergency telephone locations; and locations of exits.~~

~~403.6.1.2. Plan updating. The plans and diagrams required by Section 404, 403.6.1.1 and 407.6 shall be maintained up to date and the fire code official and fire department shall be informed of major changes.~~

~~403.6.1.3. Emergency response team. Responsible persons shall be designated as an on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses; identifying locations where HPM is stored, handled and used; and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.~~

~~403.6.1.4. Emergency drills. Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.~~

~~403.7. Group I occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group I occupancies. Group I occupancies shall also comply with Sections 403.7.1 through 403.7.3.~~

~~403.7.1. Group I 1 occupancies. Group I 1 occupancies shall comply with Sections 403.7.1.1 through 403.7.1.6.~~

~~403.7.1.1. Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special employee actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of any resident with unusual needs.~~

~~403.7.1.2. Employee training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by employees at intervals not exceeding two months. A copy of the plan shall be readily available at all times within the facility.~~

~~403.7.1.3. Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.~~

~~403.7.1.4. Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation.~~

~~403.7.1.5. Drill times. Drills times are not required to comply with Section 405.4.~~

~~403.7.1.6. Resident participation in drills. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point.~~

~~403.7.2. Group I 2 occupancies. Group I 2 occupancies shall comply with Sections 403.7.2.1 through 403.7.2.3.~~

~~403.7.2.1. Drill times. Drill times are not required to comply with Section 405.4.~~

~~403.7.2.2. Evacuation not required. During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.~~

~~403.7.2.3. Coded alarm signal. When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.~~

~~403.7.3. Group I 3 occupancies. Group I 3 occupancies shall comply with Sections 403.7.3.1 through 403.7.3.4.~~

~~403.7.3.1. Employee training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new employees shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually.~~

~~403.7.3.2. Employee staffing. Group I 3 occupancies shall be provided with 24 hour staffing. An employee shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Conditions 3, 4 and 5, as defined in "Occupancy Classification—Institutional Group I 3" in Chapter 2, the arrangement shall be such that the employee involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.~~

~~Exception: An employee shall not be required to be within three floors or 300 feet (9144 mm) in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the International Building Code.~~

~~403.7.3.3. Notification. Provisions shall be made for residents in Conditions 3, 4 and 5, as defined in "Occupancy Classification—Institutional Group I 3" in Chapter 2, to readily notify an employee of an emergency.~~

~~403.7.3.4. Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.~~

~~403.8. Group M occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group M occupancy, where the Group M occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge, and for buildings containing both a Group M occupancy and an atrium.~~

D. Change Section 403.10 to read as follows:

~~403.9. 403.10 Group R occupancies. Group R occupancies shall comply with the provisions of this section applicable to the type of Group R occupancy Sections 403.10.1 through 403.10.4.~~

~~403.9.1. Group R 1 occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 1 occupancies. Group R 1 occupancies shall also comply with Sections 403.9.1.1 through 403.9.1.3.~~

~~403.9.1.1. Evacuation diagrams. A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each hotel or motel sleeping unit.~~

~~403.9.1.2. Emergency duties. Upon discovery of a fire or suspected fire, hotel and motel employees shall perform the following duties:~~

- ~~1. Activate the fire alarm system, where provided.~~
- ~~2. Notify the public fire department.~~
- ~~3. Take other action as previously instructed.~~

~~403.9.1.3. Fire safety and evacuation instructions. Information shall be provided in the fire safety and evacuation plan required by Section 404 to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.~~

~~403.9.2. Group R 2 occupancies. Group R 2 occupancies shall comply with Sections 403.9.2.1 through 403.9.2.3.~~

~~403.9.2.1. College and university buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 2 college and university buildings. Group R 2 college and university buildings shall also comply with Sections 403.9.2.1.1 and 403.9.2.1.2.~~

~~403.9.2.1.1. First emergency evacuation drill. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.~~

~~403.9.2.1.2. Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires. One required drill shall be held during hours after sunset or before sunrise.~~

~~403.9.2.2. Emergency guide. Fire emergency guides shall be provided for Group R 2 occupancies. Guide contents, maintenance and distribution shall comply with Sections 403.9.2.2.1 through 403.9.2.2.3.~~

~~403.9.2.2.1. Guide contents. Fire emergency guides shall describe the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. Guides shall also include an emergency evacuation plan for each dwelling unit.~~

~~403.9.2.2.2. Emergency guide maintenance. Emergency guides shall be reviewed and approved by the fire code official.~~

~~403.9.2.2.3. Emergency guide distribution. A copy of the emergency guide shall be given to each tenant prior to initial occupancy.~~

~~403.9.2.3. Evacuation diagrams for dormitories. A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each dormitory sleeping unit. Evacuation diagrams shall be reviewed and updated as needed to maintain accuracy.~~

~~403.9.3. Group R 4 occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 4 occupancies. Group R 4 occupancies shall also comply with Sections 403.9.3.1 through 403.9.3.6.~~

~~403.9.3.1. Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special employee actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of a resident with unusual needs.~~

~~403.9.3.2. Employee training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by employees at intervals not exceeding two months. A copy of the plan shall be readily available at all times within the facility.~~

~~403.9.3.3. Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.~~

~~403.9.3.4. Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation.~~

~~403.9.3.5. Drill times. Drills are not required to comply with Section 405.4.~~

~~403.9.3.6. Resident participation in drills. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.~~

~~Exception: Actual exiting from windows shall not be required. Opening the window and signaling for help shall be an acceptable alternative.~~

E. Add Section 403.10.4 to read:

~~403.9.4. 403.10.4 Group R-3 and R-5 lodging facilities. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R-3 and R-5 bed and breakfast and other transient boarding facilities that are either proprietor or non-proprietor occupied.~~

F. Change Section 403.11 to read:

~~403.10. 403.11 Special uses. Special uses shall comply with the provisions of this section applicable to the type of special use be in accordance with Sections 403.11.1 through 403.11.5.~~

~~403.10.1. Covered and open mall buildings. Covered and open mall buildings shall comply with the requirements of Sections 403.10.1.1 through 403.10.1.6.~~

~~403.10.1.1. Malls and mall buildings exceeding 50,000 square feet. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for covered malls exceeding 50,000 square feet (4645 m²) in aggregate floor area and for open mall buildings exceeding 50,000 square feet (4645 m²) in aggregate area within perimeter line.~~

~~403.10.1.2. Lease plan. In addition to the requirements of Section 404.2.2, a lease plan that includes the following information shall be prepared for each covered and open mall building:~~

~~1. Each occupancy, including identification of tenant.~~

~~2. Exits from each tenant space.~~

~~3. Fire protection features, including the following:~~

~~3.1. Fire department connections.~~

~~3.2. Fire command center.~~

~~3.3. Smoke management system controls.~~

~~3.4. Elevators, elevator machine rooms and controls.~~

~~3.5. Hose valve outlets.~~

~~3.6. Sprinkler and standpipe control valves.~~

~~3.7. Automatic fire extinguishing system areas.~~

~~3.8. Automatic fire detector zones.~~

~~3.9. Fire barriers.~~

~~403.10.1.3. Lease plan approval. The lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.~~

~~403.10.1.4. Lease plan revisions. The lease plans shall be revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies shall not be made without prior approval of the fire code official and building official.~~

~~403.10.1.5. Tenant identification. Tenant identification shall be provided for secondary exits from occupied tenant spaces that lead to an exit corridor or directly to the exterior of the building. Tenant identification shall be posted on the exterior side of the exit or exit access door and shall identify the business name or address, or both, using plainly legible letters and numbers that contrast with their background.~~

~~Exception: Tenant identification is not required for anchor stores.~~

~~403.10.1.6. Unoccupied tenant spaces. The fire safety and evacuation plan shall provide for compliance with the requirements for unoccupied tenant spaces in Section 311.~~

~~403.10.2. High rise buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for high rise buildings.~~

~~403.10.3. Underground buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for underground buildings.~~

G. Add Section 403.11.5 to read:

~~403.10.4. 403.11.5 SRCF. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for SRCFs.~~

~~403.11. Special requirements for public safety. Special requirements for public safety shall be as required in this section.~~

~~403.11.1. Fire watch personnel. When, in the opinion of the fire code official, it is essential for public safety in a place of assembly or any other place where people congregate, because of the number of persons or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel, as required and approved. Fire watch personnel shall comply with Sections 403.11.1.1 and 403.11.1.2.~~

~~403.11.1.1. Duty times. Fire watch personnel shall remain on duty during the times places requiring a fire watch are open to the public, or when an activity requiring a fire watch is being conducted.~~

~~403.11.1.2. Duties. On duty fire watch personnel shall have the following duties:~~

~~1. Keep diligent watch for fires, obstructions to means of egress and other hazards.~~

~~2. Take prompt measures for remediation of hazards and extinguishment of fires that occur.~~

~~3. Take prompt measures to assist in the evacuation of the public from the structures.~~

~~403.11.2. Public safety plan for gatherings. In other than Group A or E occupancies, where the fire code official determines that an indoor or outdoor gathering of persons has an adverse impact on public safety through diminished access to buildings, structures, fire hydrants and fire apparatus access roads or where such gatherings adversely affect public safety services of any kind, the fire code official shall have the authority to order the development of or prescribe a public safety plan that provides an approved level of public safety and addresses the following items:~~

~~1. Emergency vehicle ingress and egress.~~

~~2. Fire protection.~~

~~3. Emergency egress or escape routes.~~

~~4. Emergency medical services.~~

~~5. Public assembly areas.~~

~~6. The directing of both attendees and vehicles, including the parking of vehicles.~~

~~7. Vendor and food concession distribution.~~

~~8. The need for the presence of law enforcement.~~

~~9. The need for fire and emergency medical services personnel.~~

~~403.11.3. Crowd managers for gatherings exceeding 1,000 people. Where facilities or events involve a gathering of more than 1,000 people, crowd managers shall be provided in accordance with Section 403.11.3.1.~~

~~403.11.3.1. Number of crowd managers. The minimum number of crowd managers shall be established at a ratio of one crowd manager for every 250 persons.~~

~~Exception: Where approved by the fire code official, the number of crowd managers shall be permitted to be reduced where the facility is equipped throughout with an approved automatic sprinkler system or based upon the nature of the event.~~

~~403.11.3.2. Duties. The duties of crowd managers shall include, but not be limited to:~~

~~1. Conduct an inspection of the area of responsibility and identify and address any egress barriers.~~

~~2. Conduct an inspection of the area of responsibility and identify and mitigate any fire hazards.~~

~~3. Verify compliance with all permit conditions, including those governing pyrotechnics and other special effects.~~

~~4. Direct and assist the event attendees in evacuation during an emergency.~~

~~5. Assist emergency response personnel where requested.~~

~~6. Other duties required by the fire code official.~~

~~7. Other duties as specified in the fire safety plan.~~

~~403.11.3.3. Training. Training for crowd managers shall be approved.~~

~~C. Change Section 404 to read:~~

~~Section 404.~~

~~Fire Safety, Evacuation and Lockdown Plans.~~

~~404.1. General. Where required by Section 403, fire safety, evacuation and lockdown plans shall comply with Sections 404.2 through 404.4.1.~~

~~404.2. Contents. Fire safety and evacuation plan contents shall be in accordance with Sections 404.2.1 and 404.2.2.~~

~~404.2.1. Fire evacuation plans. Fire evacuation plans shall include the following:~~

- ~~1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.~~
- ~~2. Procedures for employees who must remain to operate critical equipment before evacuating.~~
- ~~3. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.~~
- ~~4. Procedures for accounting for employees and occupants after evacuation has been completed.~~
- ~~5. Identification and assignment of personnel responsible for rescue or emergency medical aid.~~
- ~~6. The preferred and any alternative means of notifying occupants of a fire or emergency.~~
- ~~7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.~~
- ~~8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.~~
- ~~9. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.~~

~~404.2.2. Fire safety plans. Fire safety plans shall include the following:~~

- ~~1. The procedure for reporting a fire or other emergency.~~
- ~~2. The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.~~
- ~~3. Site plans indicating the following:~~
 - ~~3.1. The occupancy assembly point.~~
 - ~~3.2. The locations of fire hydrants.~~
 - ~~3.3. The normal routes of fire department vehicle access.~~
- ~~4. Floor plans identifying the locations of the following:~~
 - ~~4.1. Exits.~~
 - ~~4.2. Primary evacuation routes.~~
 - ~~4.3. Secondary evacuation routes.~~
 - ~~4.4. Accessible egress routes.~~

~~4.5. Areas of refuge.~~

~~4.6. Exterior areas for assisted rescue.~~

~~4.7. Manual fire alarm boxes.~~

~~4.8. Portable fire extinguishers.~~

~~4.9. Occupant use hose stations.~~

~~4.10. Fire alarm annunciators and controls.~~

~~5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.~~

~~6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.~~

~~7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.~~

~~404.2.3. Lockdown plans. Where facilities develop a lockdown plan, the lockdown plan shall be in accordance with Sections 404.2.3.1 through 404.2.3.3.~~

~~404.2.3.1. Lockdown plan contents. Lockdown plans shall be approved by the fire code official and shall include the following:~~

~~1. Initiation. The plan shall include instructions for reporting an emergency that requires a lockdown.~~

~~2. Accountability. The plan shall include accountability procedures for staff to report the presence or absence of occupants.~~

~~3. Recall. The plan shall include a prearranged signal for returning to normal activity.~~

~~4. Communication and coordination. The plan shall include an approved means of two way communication between a central location and each secured area.~~

~~404.2.3.2. Training frequency. The training frequency shall be included in the lockdown plan. The lockdown drills shall not substitute for any of the fire and evacuation drills required in Section 405.2.~~

~~404.2.3.3. Lockdown notification. The method of notifying building occupants of a lockdown shall be included in the plan. The method of notification shall be separate and distinct from the fire alarm signal.~~

~~404.3. Maintenance. Fire safety and evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.~~

~~404.4. Availability. Fire safety and evacuation plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.~~

H. Change Section 404.4.1 to read:

404.4.1- Distribution. The fire safety and evacuation plans shall be distributed to the tenants and building service employees by the owner or owner's agent. Tenants shall distribute to their employees applicable parts of the fire safety plan affecting the employees' actions in the event of a fire or other emergency. Fire safety and evacuation plans shall be made available by the proprietor of Group R-3 and R-5 bed and breakfast and other transient boarding facilities to transient guests upon their arrival or are present in each transient guest room.

~~D. I.~~ Change Section 405.1 to read:

405.1- General. Emergency evacuation drills complying with Sections 405.2 through 405.9 shall be conducted at least annually where fire safety and evacuation plans are required by Section 403 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.

Exception: Emergency evacuation drills shall not be conducted in school buildings during periods of mandatory testing required by the Virginia Board of Education.

~~E.~~ Delete the "High-rise buildings" row in Table 405.2; add J. Add the following row to Table 405.2; and change footnotes "a," "b," and "d" of Table 405.2 to read:

Group or Occupancy	Frequency	Participation
SRCF	Monthly	All occupants
^{a-} In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency. ^{b-} Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 403.9.3.6. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program. ^{d-} Applicable to Group R-2 college and university buildings in accordance with Section 403.9.2.1.		

~~F. K.~~ Add Section 405.2.1 to read:

405.2.1- High-rise buildings. Fire exit drills shall be conducted annually by building staff personnel or the owner of the building in accordance with the fire safety plan and shall not affect other current occupants.

~~G.~~ Change Item 4 of Section 405.5 to read:

~~4. Employees on duty and participating.~~

~~H.~~ Change Section 406.1 to read:

~~406.1. General. Where fire safety and evacuation plans are required by Section 403, employees shall be trained in fire emergency procedures based on plans prepared in accordance with Section 404.~~

~~I.~~ Change Section 406.3.3 to read:

~~406.3.3. Fire safety training. Employees assigned firefighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual firefighting equipment and the protective clothing or equipment required for its safe and proper use.~~

~~J.~~ Delete Section 406.3.4.

~~K.~~ Add Section 406.4 to read:

~~406.4. Emergency lockdown training. Where a facility has a lockdown plan, employees shall be trained on their assigned duties and procedures in the event of an emergency lockdown.~~

~~L.~~ Delete Section 408 in its entirety.

13VAC5-51-133. IFC Chapter 5: Fire Service Features.

A. Change Section 501.2 to read:

501.2- Permits. A permit shall be required as set forth in Section 107.2.

B. Delete Section 501.4.

C. Add exceptions to Section 503.1 to read:

Exceptions:

1. Fire apparatus access roads shall be permitted to be provided and maintained in accordance with written policy that establish fire apparatus access road requirements and such requirements shall be identified to the owner or his agent prior to the building official's approval of the building permit.

2. On construction and demolition sites fire apparatus access roads shall be permitted to be provided and maintained in accordance with Section 3310.1.

D. Add exception to Section 503.2.1 to read:

Exception: Fire apparatus access roads exclusively serving single family dwelling or townhouse developments that are fully sprinklered as provided for in Sections R313.1 or R313.2 of the International Residential Code shall have an unobstructed width of not less than 18 feet (5486 mm), exclusive of shoulders.

E. Add Section 503.7 to read:

503.7- Fire lanes for existing buildings. The fire code official is authorized to designate public and private fire lanes as deemed necessary for the efficient and effective operation of fire apparatus. Fire lanes shall comply with Sections 503.2 through 503.6.

F. Add ~~Sections~~ Section 507.3.1 and ~~507.3.2~~ to read:

507.3.1- Fire flow requirements for fully sprinklered residential developments. Notwithstanding Section 103.1.2, the fire flow requirements in Table ~~B105.1~~ B105.1(1) of Appendix B of the IFC, ~~as modified by Section 507.3.2~~, shall be permitted to be used for determining fire flow in single family dwelling and townhouse developments which are fully sprinklered as provided for in Sections R313.1 or R313.2 of the International Residential Code.

~~507.3.2. Modifications to Table B105.1. The first six rows of columns five and six of Table B105.1 of Appendix B of the IFC shall be modified as shown below for the use of Table B105.1 in Section 507.3.1.~~

Type 5-B	Fire flow (gallons per minute)
0-5000	4000
5001-7200	4250
7201-8200	4500
8201-9500	4750
9501-11300	2000
11301-13000	2250

G. Change Section 507.5.1 to read:

507.5.1- Where required. Fire hydrant systems shall be located and installed as directed by the fire department. Fire hydrant systems shall conform to the written standards of the jurisdiction and the fire department.

H. Add Section 507.5.1.2 to read:

507.5.1.2- Fire hydrant requirements for fully sprinklered residential developments. Notwithstanding Section 103.1.2, the number and distribution of fire hydrants in Table ~~C105.1~~ C102.1 of Appendix C of the IFC shall be permitted to be used in single family dwelling and townhouse developments which are fully sprinklered as provided for in Sections

R313.1 or R313.2 of the International Residential Code, with the spacing and distances of fire hydrants indicated in Table ~~C105.1~~ C102.1 increased by 100%.

I. Change Section 510 to read:

Section 510.

Maintenance of In-Building Emergency Communication Equipment.

510.1- General. In-building emergency communication equipment shall be maintained in accordance with USBC and the provisions of this section.

510.2- Additional in-building emergency communications installations. If it is determined by the locality that increased amplification of their emergency communication system is needed, the building owner shall allow the locality access as well as provide appropriate space within the building to install and maintain necessary additional communication equipment by the locality. If the building owner denies the locality access or appropriate space, or both, the building owner shall be responsible for the installation and maintenance of these additional systems.

510.3- Field tests. After providing reasonable notice to the owner or their representative, the fire official, police chief, or their agents shall have the right during normal business hours, or other mutually agreed upon time, to enter onto the property to conduct field tests to verify that the required level of radio coverage is present at no cost to the owner.

13VAC5-51-133.5. IFC Chapter 6- Building Services and Systems.

A. Change Section 601.2 to read:

601.2- Permits. Permits shall be obtained for refrigeration systems, battery systems and solar photovoltaic power systems as set forth in Section 107.2.

B. Add a note to Section 603.7 to read:

Note: The fire code official may request a copy of the latest certificate of inspection from the Virginia Department of Labor and Industry for boilers and pressure vessels subject to such requirements. When the certificate is not available, the fire code official shall notify the Department of Labor and Industry to ensure that the required maintenance and testing is performed in accordance the Virginia Boiler and Pressure Vessel Regulations (16VAC25-50).

C. Add Section ~~604.7~~ 604.8 to read:

~~604.7.~~ 604.8 Testing of battery powered emergency lights and exit signs. Required emergency lighting utilizing battery powered emergency lights or exit signs, or both, shall be tested annually. The emergency lights and exit signs shall be tested for proper operation for the time period established in the building code in effect when the equipment was installed. Written records of tests shall be retained by the owner of the building for a minimum of two years after the test is conducted and shall be made available to the fire code official upon request.

D. Change Section 605.10.1 to read:

605.10.1- Listed and labeled. Only portable electric space heaters listed and labeled in accordance with UL 1278 shall be used.

E. Change Section 607.1 to read:

607.1- Operation. Existing elevators with a travel distance of 25 feet (7620 mm) or more shall comply with the requirements of Section 607.5 and the USBC, Part III, Maintenance.

F. Change Section 609.3.3.3 and add Section ~~609.3.3.3.1~~ to read:

609.3.3.3- Records. Records for inspections shall state the individual and company performing the inspection, a description of the inspection, and when the inspection took place. Records for cleanings shall state the individual and

company performing the cleaning and when the cleaning took place. Such records shall be completed after each inspection or cleaning and maintained for a minimum of three years and be copied to the fire code official upon request.

~~609.3.3.3.1. Tags. Where a commercial kitchen hood or duct system is cleaned, a tag containing the service provider name, address, telephone number, and date of service shall be provided in a conspicuous location. Prior tags shall be covered or removed.~~

G. Add an exception to Section 609.3.3.3.1 to read:

Exception: Where records required by Section 609.3.3.3 are maintained on the premises.

13VAC5-51-133.8. IFC Chapter 7- ~~Fire Resistance Rated Construction~~ Fire and Smoke Protection Features.

Change Section 704.1 to read:

704.1- Enclosure. New floor openings in existing buildings shall comply with the International Building Code.

13VAC5-51-134. IFC Chapter 8- Interior Finish, Decorative Materials and Furnishings.

A. Add exception 3 to Section 806.1.1 to read:

3. Trees shall be permitted in places of worship in Group A occupancies.

B. Change exception 2 in Section ~~807.1~~ 807.3 to read:

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

~~Exception: 2. In dwelling units or sleeping rooms in Group R-2 dormitories, the permissible amount of decorative material suspended from or attached to the walls shall not exceed 50% of the aggregate area of the walls where the building has an approved automatic sprinkler system or 20% of the aggregate area of the walls where approved smoke alarms are provided and in the corridors of such buildings, the permissible amount of decorative material suspended from or attached to the walls shall not exceed 10% of the aggregate area of the walls.~~

~~In Groups I-1 and I-2, combustible decorative materials shall meet the flame propagation criteria of NFPA 701 unless the decorative materials, including, but not limited to, photographs and paintings, are of such limited quantities that a hazard of fire development or spread is not present. In Group I-3, combustible decorative materials are prohibited.~~

~~Fixed or movable walls and partitions, paneling, wall pads and crash pads, applied structurally or for decoration, acoustical correction, surface insulation or other purposes, shall be considered interior finish if they cover 10% or more of the wall or of the ceiling area, and shall not be considered decorative materials or furnishings.~~

~~In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 807.2 and NFPA 701 or shall be noncombustible.~~

13VAC5-51-135. IFC Chapter 9- Fire Protection Systems.

A. Change Section 901.3 to read:

901.3- Permits. Permits shall be required as set forth in Section 107.2.

B. Change Section 901.4.2 to read:

901.4.2- Nonrequired fire protection systems. Nonrequired fire protection systems shall be maintained to function as originally installed. If any such systems are to be reduced in function or discontinued, approval shall be obtained from the building official in accordance with Section 103.8.1 of Part I of the USBC.

C. Delete Section 901.4.4.

D. Change Section 901.6 to read:

901.6- Inspection, testing and maintenance. To the extent that equipment, systems, devices, and safeguards, such as fire detection, alarm and extinguishing systems, which were provided and approved by the building official when constructed, shall be maintained in an operative condition at all times. And where such equipment, systems, devices, and safeguards are found not to be in an operative condition, the fire official shall order all such equipment to be rendered safe in accordance with the USBC.

E. Add Section 901.11 to read:

901.11- Defective equipment. When the fire official determines through investigation or testing or reports by a nationally recognized testing agency that specific, required water sprinkler or water-spray extinguishing equipment has been identified as failing to perform or operate through not less than 30 randomly selected sprinkler heads at four or more building sites anywhere in the nation, the fire official shall order all such equipment to be rendered safe.

F. Change Section 903.6 to read:

903.6- Where required in existing buildings and structures. An automatic sprinkler system shall be provided in existing buildings and structures in accordance with Section 102.7 of this code.

G. Delete Section 905.11.

H. Change Item 1 in Section 906.1 to read:

1. In Group A, B, E, F, H, I, M, R-1, R-4 and S occupancies.

Exceptions:

1. In Groups A, B, and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.

2. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations and the access to such extinguishers shall be permitted to be locked.

I. Add a note to Section 906.1 to read:

Note: In existing buildings, whether fire extinguishers are needed is determined by the USBC or other code in effect when such buildings were constructed.

J. Change Section 907.1 to read:

907.1- General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 are applicable to new buildings and structures.

K. Change Section 907.8.2 to read:

907.8.2- Testing. Testing shall be performed in accordance with the schedules in Chapter 10 of NFPA 72 or more frequently where required by the fire code official. Where automatic testing is performed at least weekly by a remotely monitored fire alarm control unit specifically listed for the application, the manual testing frequency shall be permitted

to be extended to annual. In Group R-1 occupancies, battery-powered single station smoke detectors shall be tested and inspected at one-month intervals.

Exception: Devices or equipment that are inaccessible for safety considerations shall be tested during scheduled shutdowns where approved by the fire code official, but not less than every 18 months.

L. Change Section 907.8.5 to read:

907.8.5- Maintenance, inspection and testing. The building owner shall be responsible for maintaining the fire and life safety systems in an operable condition at all times. Service personnel shall meet the qualification requirements of NFPA 72 for maintaining, inspecting and testing such systems. A written record shall be maintained and shall be made available to the fire code official. In addition to all applicable information contained in Figure 14.6.2.2 of NFPA 72, the written record of inspections, testing and maintenance shall contain the following minimum information:

1. Date, name and address of property.
2. Name of person performing inspection, maintenance and tests, or combination thereof, and affiliation, business address and telephone number.
3. Name, address and representative of approving agency or agencies.
4. Test frequency.
5. Designation of the detector or detectors tested (for example, "Test performed in accordance with Section _____.").
6. Physical location (for example, "Heat detector in main kitchen; horn-strobe in Room 115.") and a list of all initiating and notification devices and appliances tested.
7. Functional list of detectors and required sequence of operations.
8. Check of all smoke detectors.
9. Loop resistance for all fixed-temperature, line-type detectors.
10. Other tests as required by either the equipment manufacturer's published instructions or the authority having jurisdiction.
11. Signature of tester and approved authority representative.
12. Disposition of problems identified during test (examples, "Owner notified," "Problem corrected or successfully retested, or both," "Device abandoned in place.").

M. Delete Section 907.9.

N. Change Section 908.7 to read:

908.7- Carbon monoxide alarms. Carbon monoxide alarms shall be maintained as approved.

~~O. Delete Section 908.7.1.~~

13VAC5-51-135.5. IFC Chapter 10: Means of Egress.

A. Add Section 1001.3 to read:

1001.3- Overcrowding. Overcrowding, admittance of any person beyond the approved occupant load established by the USBC or other building code under which the building was constructed, or obstructing aisles, passageways, or any part

of the means of egress shall not be allowed. The fire code official, upon finding any condition that constitutes a life safety hazard, shall be authorized to cause the event to be stopped until such condition or obstruction is corrected.

B. Change Section ~~4029.4~~ 1030.4 to read:

~~4029.4.~~ 1030.4 Operational constraints. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided (i) the minimum net clear opening size complies with Section ~~4029.2~~ 1030.2, (ii) such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening, and (iii) where smoke alarms are installed in accordance with Section 907.2.11 and approved by the building official regardless of the valuation of the alteration.

13VAC5-51-136. [Repealed]

13VAC5-51-138. IFC Chapter 11- Construction Requirements for Existing Buildings.

Delete Chapter 11 in its entirety.

13VAC5-51-138.4. IFC Chapter 20- Aviation Facilities.

Change Section 2001.3 to read:

2001.3. Permits. For permits to operate aircraft-refueling vehicles, application of flammable or combustible finishes and hot work, see Section 107.2.

13VAC5-51-138.8. IFC Chapter 21- Dry Cleaning.

Change Section 2101.2 to read:

2101.2- Permit required. Permits shall be required as set forth in Section 107.2.

13VAC5-51-139. IFC Chapter 22- Combustible Dust-Producing Operations.

Change Section 2201.2 to read:

2201.2- Permits. Permits shall be required for combustible dust-producing operations as set forth in Section 107.2.

13VAC5-51-140. IFC Chapter 23- Motor Fuel-Dispensing Facilities and Repair Garages.

A. Change Section 2301.2 to read:

2301.2- Permits. Permits shall be required as set forth in Section 107.2.

B. Change Section 2305.4 to read:

2305.4- Sources of ignition. Smoking and open flames shall be prohibited within 20 feet (6096 mm) of a fuel dispensing device. The engines of vehicles being fueled shall be shut off during fueling. Electrical equipment shall be in accordance with NFPA 70.

C. Change Section 2306.2.1.1 to read:

2306.2.1.1- Inventory control and leak detection for underground tanks. Accurate inventory records shall be maintained on underground fuel storage tanks for indication of possible leakage from tanks and piping. The records shall be kept at the premises or made available for inspection by the fire official within 24 hours of a written or verbal request and shall include records for each tank. Where there is more than one system consisting of tanks serving separate pumps or dispensers for a product, the inventory record shall be maintained separately for each tank system.

Owners and operators of underground fuel storage tanks shall provide release detection for tanks and piping that routinely contain flammable and combustible liquids in accordance with one of the following methods:

1. Monthly inventory control to detect a release of at least 1.0% of flow-through plus 130 gallons.
2. Manual tank gauging for tanks with 2,000 gallon capacity or less when measurements are taken at the beginning and ending of a 36-hour to 58-hour period during which no liquid is added to or removed from the tank.
3. Tank tightness testing capable of detecting a 0.1 gallon per hour leak rate.
4. Automatic tank gauging that tests for loss of liquid.
5. Vapor monitoring for vapors within the soil of the tank field.
6. Groundwater monitoring when the groundwater is never more than 20 feet from the ground surface.
7. Interstitial monitoring between the underground tank and a secondary barrier immediately around or beneath the tank.
8. Other approved methods that have been demonstrated to be as effective in detecting a leak as the methods listed above.

A consistent or accidental loss of product shall be immediately reported to the fire official.

~~D. Change Section 2306.8.1 to read:~~

~~2306.8.1. Listed. Dispensers shall be listed in accordance with UL 87A. Hoses, nozzles, breakaway fittings, swivels, flexible connectors or dispenser emergency shutoff valves, vapor recovery systems, leak detection devices, and pumps used in alcohol blended fuel dispensing systems shall be listed for the specific purpose.~~

~~E. Add Section 2306.8.6 to read:~~

~~2306.8.6. Compatibility. Dispensers shall only be used with the fuels for which they have been listed, which are marked on the product. Field installed components including hose assemblies, breakaway couplings, swivel connectors, and hose nozzle valves shall be provided in accordance with the listing and the marking on the unit.~~

13VAC5-51-140.5. IFC Chapter 24: Flammable Finishes.

Change Section 2401.3 to read:

2401.3- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-141. IFC Chapter 25: Fruit and Crop Ripening.

Change Section 2501.2 to read:

2501.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-141.5. IFC Chapter 26: Fumigation and Insecticidal Fogging.

Change Section 2601.2 to read:

2601.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-142. IFC Chapter 27: Semiconductor Fabrication Facilities.

Change Section 2701.5 to read:

2701.5- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-142.5. IFC Chapter 28- Lumber Yards and Agro-Industrial, Solid Biomass and Woodworking Facilities.

Change Section 2801.2 to read:

2801.2- Permit. Permits shall be required as set forth in Section 107.2.

13VAC5-51-143. (Repealed.)

13VAC5-51-143.5. IFC Chapter 29- Manufacture of Organic Coatings.

Change Section 2901.2 to read:

2901.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-144. IFC Chapter 30- Industrial Ovens.

Change Section 3001.2 to read:

3001.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-144.2. IFC Chapter 31- Tents and Other Membrane Structures.

Change Section 3103.4 to read:

3103.4- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-144.4. IFC Chapter 32- High-Piled Combustible Storage.

Change Section 3201.2 to read:

3201.2- Permits. A permit shall be required as set forth in Section 107.2.

13VAC5-51-144.6. IFC Chapter 34- Tire Rebuilding and Tire Storage.

A. Change Section 3401.2 to read:

3401.2- Permit required. Permits shall be required as set forth in Section 107.2.

B. Change Section 3406.1 to read:

3406.1- Required access. New and existing tire storage yards shall be provided with fire apparatus access roads in accordance with Section 503 and Section 3406.2.

13VAC5-51-144.8. IFC Chapter 37 Combustible Fibers.

Change Section 3701.3 to read:

3701.3 Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-145. IFC Chapter 50- Hazardous Materials - General Provisions.

A. Change Section 5001.5 to read:

5001.5- Permits. Permits shall be required as set forth in Section 107.2.

B. Add the following language to the end of Section 5001.5.1 to read:

The HMMP shall be maintained onsite for use by emergency responders, and shall be updated not less than annually.

C. Add the following language to the end of Section 5001.5.2 to read:

The HMIS shall be maintained onsite or readily available through another means where approved by the fire code official for use by temporary responders, and shall be updated not less than annually.

D. Add Sections 5001.5.3, 5001.5.3.1, and 5001.5.3.2 to read:

5001.5.3- Repository container. When a HMMP or HMIS is required, the owner or operator shall provide a repository container (lock box) or other approved means for the storage of items required in Sections 5001.5.1 and 5001.5.2 so as to be readily available to emergency response personnel.

5001.5.3.1- Location and identification. The repository container (lock box) shall be located, installed and identified in an approved manner.

5001.5.3.2- Keying. All repository containers (lock boxes) shall be keyed as required by the fire code official.

E. ~~Change the "Consumer fireworks" row in and add~~ Add a new "Permissible fireworks" row to Table 5003.1.1(1) to read:

Consumer fireworks	1.4G	H-3	125 ^{e,l}	N/A						
Permissible fireworks	1.4G	H-3	125 ^{d,e,l}	N/A						

F. Change Section 5003.3.1.4 to read:

5003.3.1.4- Responsibility for cleanup. The person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. The fire code official may require records and receipts to verify cleanup and proper disposal of unauthorized discharges. When deemed necessary by the fire code official, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other person responsible for the unauthorized discharge.

13VAC5-51-145.5. IFC Chapter 51- Aerosols.

Change Section 5101.2 to read:

5101.2- Permit required. Permits shall be required as set forth in Section 107.2.

13VAC5-51-146. ~~IFC Chapter 52- Combustible Fibers. (Repealed).~~

~~Change Section 5201.3 to read:~~

~~5201.3- Permits. Permits shall be required as set forth in Section 107.2.~~

13VAC5-51-146.5. IFC Chapter 53- Compressed Gases.

Change Section 5301.2 to read:

5301.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-147. IFC Chapter 54- Corrosive Materials.

Change Section 5401.2 to read:

5401.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-147.5. IFC Chapter 55- Cryogenic Fluids.

Change Section 5501.2 to read:

5501.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-150. IFC Chapter 56- Explosives and Fireworks.

A. Change exception 4 in Section 5601.1 to read:

4. The possession, storage, and use of not more than 15 pounds (6.81 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and any amount of small arms primers for hand loading of small arms ammunition for personal consumption.

B. Add exceptions 10, 11 and 12 to Section 5601.1 to read:

10. The storage, handling, or use of explosives or blasting agents pursuant to the provisions of Title 45.1 of the Code of Virginia.

11. The display of small arms primers in Group M when in the original manufacturer's packaging.

12. The possession, storage and use of not more than 50 pounds (23 kg) of commercially manufactured sporting black powder, 100 pounds (45 kg) of smokeless powder, and small arms primers for hand loading of small arms ammunition for personal consumption in Group R-3 or R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5.

C. Change exception 4 in Section 5601.1.3 to read:

4. The possession, storage, sale, handling and use of permissible fireworks where allowed by applicable local or state laws, ordinances and regulations provided such fireworks comply with CPSC 16 CFR, Parts 1500-1507, and DOTn 49 CFR, Parts 100-178, for consumer fireworks.

D. Add exception 5 to Section 5601.1.3 to read:

5. The sale or use of materials or equipment when such materials or equipment is used or to be used by any person for signaling or other emergency use in the operation of any boat, railroad train or other vehicle for the transportation of persons or property.

E. Change entire Section 5601.2 to read:

5601.2- Permit required. Permits shall be required as set forth in Section 107.2 and regulated in accordance with this section. The manufacture, storage, possession, sale and use of fireworks or explosives shall not take place without first applying for and obtaining a permit.

5601.2.1- Residential uses. No person shall keep or store, nor shall any permit be issued to keep, possess or store, any fireworks or explosives at any place of habitation, or within 100 feet (30,480 mm) thereof.

Exception: Storage of smokeless propellant, black powder, and small arms primers for personal use and not for resale in accordance with Section 5606.

5601.2.2- Sale and retail display. Except for the Armed Forces of the United States, Coast Guard, National Guard, federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities, explosives shall not be sold, given, delivered or transferred to any person or company not in possession of a valid permit. The holder of a permit to sell explosives shall make a record of all transactions involving explosives in conformance with Section 5603.2 and include the signature of any receiver of the explosives. No person shall construct a retail display nor offer for sale explosives, explosive materials, or fireworks upon highways, sidewalks, public property, or in assembly or educational occupancies.

5601.2.3- Permit restrictions. The fire official is authorized to limit the quantity of explosives, explosive materials, or fireworks permitted at a given location. No person, possessing a permit for storage of explosives at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of explosive specified in such a permit shall be kept or stored.

5601.2.3.1- Permit applicants. As a condition of a permit as provided for in Section 107.5, the fire official shall not issue a permit to manufacture, store, handle, use or sell explosives or blasting agents to any applicant who has not provided on the permit application the name and signature of a designated individual as representing the applicant. When, as provided for in Section 107.2 or 107.6, a permit is required to conduct a fireworks display, as a condition of permit as provided for in Section 107.5, the fire official shall not issue a permit to design, setup or conduct a fireworks display to any applicant who has not provided on the permit application the name and signature of a designated individual as representing the applicant.

If the applicant's designated individual changes or becomes no longer qualified to represent the applicant as responsible management or designated individual, the applicant shall notify the fire official who issued the permit on the change of status of the designated individual. The notice is to be made prior to the use of any explosives or conducting a fireworks display but in no case shall the notification occur more than seven days after the change of status and shall provide the name of another designated individual. The fire official may revoke or require the reissuance of a permit based on a change of permit conditions or status or inability to provide another designated individual.

5601.2.3.1.1- BCC: The SFMO shall process all applications for a BCC for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of a BCC. Using forms provided by the SFMO, a BCC may be applied for and issued to any person who submits to the completion of a background investigation by providing fingerprints and personal descriptive information to the SFMO. The SFMO shall forward the fingerprints and personal descriptive information to the Central Criminal Records Exchange for submission to the Federal Bureau of Investigation for the purpose of obtaining a national criminal history records check regarding such applicant.

5601.2.3.1.2- Issuance of a BCC: The issuance of a BCC shall be denied if the applicant or designated person representing an applicant has been convicted of any felony, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof, unless his civil rights have been restored by the Governor or other appropriate authority.

5601.2.3.1.3- Fee for BCC: The fee for obtaining or renewing a BCC from the SFMO shall be \$150 plus any additional fees charged by other agencies for fingerprinting and for obtaining a national criminal history record check through the Central Criminal Records Exchange to the Federal Bureau of Investigation.

5601.2.3.1.4- Revocation of a BCC: After issuance of a BCC, subsequent conviction of a felony will be grounds for immediate revocation of a BCC, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof. The BCC shall be returned to the SFMO immediately. An individual may reapply for his BCC if his civil rights have been restored by the Governor or other appropriate authority.

5601.2.4- Financial responsibility. Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of \$500,000 or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The legal department of the jurisdiction may specify a greater amount when conditions at the location of use indicate a greater amount is required. Government entities shall be exempt from this bond requirement.

5601.2.4.1- Blasting. Before approval to do blasting is issued, the applicant for approval shall file a bond or submit a certificate of insurance in such form, amount, and coverage as determined by the legal department of the jurisdiction to be adequate in each case to indemnify the jurisdiction against any and all damages arising from permitted blasting but in no case shall the value of the coverage be less than \$1,000,000.

Exception: Filing a bond or submitting a certificate of liability insurance is not required for blasting on real estate parcels of five or more acres conforming to the definition of "real estate devoted to agricultural use" or "real estate devoted to horticultural use" in § 58.1-3230 of the Code of Virginia and conducted by the owner of such real estate.

5601.2.4.2- Fireworks display. The permit holder shall furnish a bond or certificate of insurance in an amount deemed adequate by the legal department of the jurisdiction for the payment of all potential damages to a person or persons or to property by reason of the permitted display, and arising from any acts of the permit holder, the agent, employees or subcontractors, but in no case shall the value of the coverage be less than \$1,000,000.

F. Change entire Section 5601.4 to read:

5601.4- Qualifications. Persons in charge of magazines, blasting, fireworks display, or pyrotechnic special effect operations shall not be under the influence of alcohol or drugs which impair sensory or motor skills, shall be at least 21 years of age and possess knowledge of all safety precautions related to the storage, handling or use of explosives, explosive materials or fireworks.

5601.4.1- Certification of blasters and pyrotechnicians. Certificates as a restricted blaster, unrestricted blaster or pyrotechnician will be issued upon proof of successful completion of an examination approved by the SFMO commensurate to the certification sought and completion of a background investigation for compliance with § 27-97.2 of the Code of Virginia. The applicant for certification shall submit proof to the SFMO of the following experience:

1. For certification as a restricted blaster, at least one year under direct supervision by a certified unrestricted blaster, certified restricted blaster or other person(s) approved by the SFMO.
2. For certification as an unrestricted blaster, at least one year under direct supervision by a certified unrestricted blaster or other person or persons approved by the SFMO.
3. For certification as a pyrotechnician, aerial, or pyrotechnician, proximate, applicant was in responsible charge of or has assisted in the documented design, setup and conducting of a fireworks display on at least six occasions within the 24 months immediately preceding the application for certification.

The SFMO shall process all certification applicants for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of blaster and pyrotechnician certifications.

Exception: The use of explosives by the owner of real estate parcels of five or more acres conforming to the definition of "real estate devoted to agricultural use" or "real estate devoted to horticultural use" in § 58.1-3230 of the Code of Virginia when blasting on such real estate.

5601.4.2- Certification issuance. The issuance of a certification as a blaster or pyrotechnician shall be denied if the applicant has (i) been convicted of any felony, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof, unless his civil rights have been restored by the Governor or other appropriate authority, (ii) has not provided acceptable proof or evidence of the experience required in Section 5601.4.1, or (iii) has not provided acceptable proof or evidence of the continued training or education required in Section 5601.4.5.

5601.4.3- Fee for certification. The fee for obtaining or renewing a blaster or pyrotechnician certificate from the SFMO shall be \$150 plus any additional fees charged by other agencies for fingerprinting and for obtaining a national criminal history record check through the Central Criminal Records Exchange to the Federal Bureau of Investigation.

5601.4.3.1- Fee for replacement certificate. A written request for a replacement blaster or pyrotechnician certificate shall be accompanied by the payment of an administrative fee in the amount of \$20 made payable to the Treasurer of Virginia. Verbal requests shall not be accepted.

5601.4.4- Revocation of a blaster or pyrotechnician certification. After issuance of a blaster or pyrotechnician certification, subsequent conviction of a felony will be grounds for immediate revocation of a blaster or pyrotechnician certification, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof. The certification shall be returned to the SFMO immediately. An individual may subsequently reapply for his blaster or pyrotechnician certification if his civil rights have been restored by the Governor or other appropriate authority.

5601.4.5- Expiration and renewal of a BCC, or blaster or pyrotechnician certification. A certificate for an unrestricted blaster, restricted blaster or pyrotechnician shall be valid for three years from the date of issuance. A BCC shall be valid for three years from the date of issuance. Renewal of the unrestricted blaster certificate will be issued upon proof of at least 16 accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with § 27-97.2 of the Code of Virginia. Renewal of the restricted blaster certificate will be issued upon proof of at least eight accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with § 27-97.2 of the Code of Virginia. Renewal of the pyrotechnician certificate will be issued upon proof of at least 12 accumulated hours of continued training or education in the subject areas of explosives storage; the design, setup or conduct of a fireworks display within three consecutive years; and a background investigation for compliance with § 27-97.2 of the Code of Virginia. The continued training or education required for renewal of a blaster or pyrotechnician certificate shall be obtained during the three years immediately prior to the certificate's published expiration date. Failure to renew a blaster or pyrotechnician certificate in accordance with this section shall cause an individual to obtain another blaster or pyrotechnician certificate upon compliance with Section 5601.4.1 to continue engaging in the unsupervised use of explosives or conducting a fireworks display.

5601.4.6- Denial, suspension or revocation of a certificate. If issuance or renewal of a blaster or pyrotechnician certificate is denied, or upon the filing of a complaint against an applicant or certificate holder for non-performance, or performance in violation of the SFPC and the appropriate referenced NFPA 495, 1123 or 1126 standards, the State Fire Marshal may convene a three-member panel to hear the particulars of the complaint or denial. The three-member panel will be comprised of the following persons:

1. A Virginia certified fire official, excluding any person certified as a blaster or pyrotechnician, or who is on the staff of the SFMO.
2. A Virginia certified blaster or pyrotechnician whose certification is the same as that of the person to whom a complaint is lodged, and who is not associated in any way with the person against whom a complaint is lodged and whose work or employer is geographically remote, as much as practically possible, from the person to whom a complaint is lodged.
3. A member of the general public who does not have a vested financial interest in conducting a fireworks display, or the manufacture, sale, storage, or use of explosives.

Upon the State Fire Marshal convening such panel, the hearing is to commence within 60 calendar days of the filing of the complaint or denial. The three-member panel is to hear the complaint and render a written recommendation to the State Fire Marshal for certificate issuance, no action, revocation, or suspension of a certificate for a period not to exceed six months. Notwithstanding the discretionary decision and action to convene such panel, the State Fire Marshal reserves the authority to choose an action that may be contrary to the panel's recommendation. A written decision of the State Fire Marshal is to be delivered to the party within 14 days of the hearing's conclusion. If the certificate is denied, revoked, or suspended by the SFMO, in accordance with Section 112.9, the party may file an appeal with the ~~TRB~~ State Review Board. The party's appeal to ~~TRB~~ State Review Board must be filed within 14 calendar days of the receipt of the State Fire Marshal's written decision to deny, revoke, or suspend. The denial, revocation, or suspension of a license is independent of any criminal proceedings that may be initiated by any state or local authority.

5601.4.6.1- Replacement of revoked certificate. Any person whose certificate as a pyrotechnician or blaster was revoked upon cause may apply for certification as a pyrotechnician or blaster six months or more from the date of the revocation and upon compliance with Section 5601.4.1. All elements of Section 5601.4.1 are required to be obtained and dated after the date of revocation.

5601.4.6.2- Return of suspended certificate. Any certificate that was suspended upon cause will be reinstated at the end of the suspension period without change to its expiration date.

G. Change Section 5601.7 to read:

5601.7- Seizure. The fire official is authorized to remove or cause to be removed or disposed of in an approved manner, at the expense of the owner, fireworks offered or exposed for sale, stored, possessed or used in violation of this chapter.

H. Add the following to the list of definitions in Section 5602.1:

Background clearance card (BCC).

Blaster, restricted.

Blaster, unrestricted.

Design.

Designated individual.

Fireworks.

Fireworks, 1.4G.

Fireworks, 1.3G.

Permissible fireworks.

Pyrotechnician (fireworks operator).

Pyrotechnician, aerial.

Pyrotechnician, proximate.

Responsible management.

Smokeless propellants.

Sole proprietor.

I. Change Section 5603.4 to read:

5603.4- Accidents. Accidents involving the use of explosives, explosive materials, and fireworks, which result in injuries or property damage, shall be immediately reported by the permit holder to the fire code official and State Fire Marshal.

J. Change Section 5605.1 to read:

5605.1. General. The manufacture, assembly and testing of explosives, ammunition, blasting agents and fireworks shall comply with the requirements of this section, Title 59.1, Chapter 11 of the Code of Virginia, and NFPA 495 or NFPA 1124.

Exceptions:

1. The hand loading of small arms ammunition prepared for personal use and not offered for resale.
2. The mixing and loading of blasting agents at blasting sites in accordance with NFPA 495.

3. The use of binary explosives or phosphoric materials in blasting or pyrotechnic special effects applications in accordance with NFPA 495 or NFPA 1126.

K. Add Section 5605.1.1 to read:

5605.1.1- Permits. Permits for the manufacture, assembly and testing of explosives, ammunition, blasting agents and fireworks shall be required as set forth in Section 107.2 and regulated in accordance with this section. A permit to manufacture any explosive material in any quantity shall be prohibited unless such manufacture is authorized by a federal license and conducted in accordance with recognized safety practices.

L. Change Section 5606.4 to read:

5606.4- Storage in residences. Propellants for personal use in quantities not exceeding 50 pounds (23 kg) of black powder or 100 pounds (45 kg) of smokeless powder shall be stored in original containers in occupancies limited to Groups R-3 and R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures that are at least 10 feet from inhabited buildings and are accessory to Group R-3 or R-5. In other than Group R-3 or R-5, smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) shall be kept in a wooden box or cabinet having walls of at least one inch (25 mm) nominal thickness or equivalent.

M. Delete Sections 5606.4.1, 5606.4.2, and 5606.4.3.

N. Change Section 5606.5.1.1 to read:

5606.5.1.1- Smokeless propellant. No more than 100 pounds (45 kg) of smokeless propellants, in containers of 8 pounds (3.6 kg) or less capacity, shall be displayed in Group M occupancies.

O. Delete Section 5606.5.1.3.

P. Change Section 5606.5.2.1 to read:

5606.5.2.1- Smokeless propellant. Commercial stocks of smokeless propellants shall be stored as follows:

1. Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least one inch (25 mm) nominal thickness or equivalent.

2. Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in storage cabinets having walls at least one inch (25 mm) nominal thickness or equivalent. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least one hour.

3. Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

3.1. The storage is inaccessible to unauthorized personnel.

3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least one inch (25 mm) nominal thickness or equivalent and having shelves with no more than three feet (914 mm) of vertical separation between shelves.

3.3. No more than 400 pounds (182 kg) is stored in any one cabinet.

3.4. Cabinets shall be located against walls with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet

(3048 mm) outward, be firmly attached to the wall, and be constructed of steel not less than 0.25 inch thick (6.4 mm), two-inch (51 mm) nominal thickness wood, brick, or concrete block.

3.5. Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids, or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of one hour.

3.6. The building shall be equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

4. Smokeless propellants not stored according to Item 1, 2, or 3 above shall be stored in a Type 2 or 4 magazine in accordance with Section 5604 and NFPA 495.

Q. Change Section 5607.1 to read:

5607.1. General. Blasting operations shall be conducted only by persons certified by the SFMO as a restricted or unrestricted blaster or shall be supervised on-site by a person properly certified by the SFMO as a restricted or unrestricted blaster.

R. Add Section 5607.16 to read:

5607.16- Blast records. A record of each blast shall be kept and retained for at least five years and shall be readily available for inspection by the code official. The record shall be in a format selected by the blaster and shall contain the minimum data and information indicated in Form 5607.16.

Form 5607.16
Blast (shot) Record

Block 1 General Information				
1	Blast date:	Blast Number:	Blast Time:	Permit Number:
2	Blast location by address including city, county or town:			
3	Blast location by GPS coordinates: <input type="checkbox"/> check box if unknown			
4	Name of Permit Holder:			
5	Name of Blaster in charge (print):			
6	Signature of Blaster in charge:			
7	Certification Number of Blaster in charge:			

Block 2 General Environmental Conditions			
1	Weather (Clear? Cloudy? Overcast?)	Wind direction and speed @_____mph	Temperature F° / C°
2	Topography (Flat? Hilly? Mountainous?)	Distance from blast site to nearest inhabited building:	Distance from nearest inhabited building determined by: <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Measurement <input type="checkbox"/> Estimated
3	Use of nearest inhabited building (Dwelling? Business? Apartment Building? School?)	Direction from blast site to nearest inhabited building:	Direction from blast site to nearest inhabited building determined by: <input type="checkbox"/> GPS instrument

			<input type="checkbox"/> Compass <input type="checkbox"/> Estimated
Additional Blaster notations on environmental conditions:			

Block 3 Shot Layout and Precautions Taken (N/A = Not Applicable)			
1	Number of holes	Diameter of hole or holes	Depth of hole or holes
2	Were any holes decked? <input type="checkbox"/> Yes <input type="checkbox"/> No	How many holes were decked? <input type="checkbox"/> N/A	How many decks per hole? <input type="checkbox"/> N/A
		(If applicable, indicate on any attached shot pattern drawing which holes were decked and the number of decks for the holes.)	
3	Shot pattern <input type="checkbox"/> Check this box if only single hole.	Depth of sub-drilling	Drilling angle
4	Burden	Spacing of holes	Water height
5	Stemming height	Material used for stemming	Check box for flyrock precautions taken <input type="checkbox"/> Mats <input type="checkbox"/> Overburden <input type="checkbox"/> None taken
Additional Blaster notations on shot layout and precautions:			

Block 4 Seismic Control Measures (N/A = Not Applicable)			
1	Was scaled distance formula used? <input type="checkbox"/> Yes <input type="checkbox"/> No	Indicate which scaled distance equation was used. <input type="checkbox"/> N/A <input type="checkbox"/> $W(lb) = \{D(ft)/50\}^2$ <input type="checkbox"/> $W(lb) = \{D(ft)/55\}^2$ <input type="checkbox"/> $W(lb) = \{D(ft)/65\}^2$	Maximum allowable charge weight per 8 ms based on scaled distance. <input type="checkbox"/> N/A
2	Was seismograph used? <input type="checkbox"/> Yes <input type="checkbox"/> No	Seismograph manufacturer and model number: <input type="checkbox"/> N/A	Seismograph serial number: <input type="checkbox"/> N/A
			Seismograph's last calibration date. <input type="checkbox"/> N/A
3	Distance and direction seismograph from blast site <input type="checkbox"/> N/A	Distance determined by: <input type="checkbox"/> N/A <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Estimated <input type="checkbox"/> Measurement	
4	Seismograph <input type="checkbox"/> N/A Geophone Minimum Frequency _____ Hz Seismograph Microphone Minimum Frequency _____ Hz	Seismograph recordings: <input type="checkbox"/> N/A Transverse _____ in/s _____ Hz Vertical _____ in/s _____ Hz Longitudinal _____ in/s _____ Hz Acoustic _____ dB _____ Hz	
5	Seismograph trigger level <input type="checkbox"/> N/A		

	_____ in/s _____ dB	
Additional Blaster notations on seismic control measures:		

Block 5 Quantity and Product				
1	Maximum allowable charge weight per 8 ms interval <input type="checkbox"/> Delay not used _____ lbs	Initiation (Check) <input type="checkbox"/> Electric <input type="checkbox"/> Non-electric <input type="checkbox"/> Electronic		
2	Maximum number of holes/decks per 8 ms interval <input type="checkbox"/> Delay not used _____ lbs			
3	Maximum weight or sticks of explosive per hole _____ lbs	Firing device manufacturer and model: <input type="checkbox"/> N/A		
Explosive Product listing (Attach additional pages as needed.)				
4	Manufacturer	Product name, description or brand	Number of units	Unit weight (lb)
5	Total explosive weight in this shot: _____ lbs.			
Additional Blaster notations on product and quantities:				

Block 6 Completion of Shot Record and General Comments	
General comments on shot not included in notes above:	
Date shot report completed:	Time shot report completed:
Printed name and signature of person completing shot report if different from Block 1, Lines 5 and 6.	(Print)
	(Signature)

S. Change Section 5608.2 to read:

5608.2- Permit application. Prior to issuing permits for a fireworks display, plans for the fireworks display, inspections of the display site and demonstrations of the display operations shall be approved. A plan establishing procedures to follow and actions to be taken in the event that a shell fails to ignite in, or discharge from, a mortar or fails to function over the fallout area or other malfunctions shall be provided to the fire code official.

In addition to the requirements of Section 5601.2.3.1, a permit to conduct a fireworks display shall not be issued to any applicant without the applicant identifying on the application the pyrotechnician who will be in responsible charge of the fireworks display and who is appropriately certified as a pyrotechnician in accordance with Section 5601.4.1.

Exception: Permits are not required for the use or display of permissible fireworks on private property with the consent of the owner of such property.

T. Change Section 5608.3 to read:

5608.3- Approved fireworks displays. Approved fireworks displays shall include only the approved fireworks 1.3G, fireworks 1.4G, fireworks 1.4S and pyrotechnic articles 1.4G. The design, setup, conducting or direct on-site supervision of the design, setup and conducting of any fireworks display, either inside a building or outdoors, shall be performed only by persons certified by the SFMO in accordance with Section 5601.4.1 as a pyrotechnician (firework operator) and at least one person properly certified by the SFMO as a pyrotechnician shall be present at the site where the fireworks display is being conducted. The approved fireworks shall be arranged, located, discharged and fired in a manner that will not pose a hazard to property or endanger any person.

Exception: Certification as a pyrotechnician is not required for the use or display of permissible fireworks when conducted on private property with the consent of the owner of such property.

U. Change Section 5608.4 to read:

5608.4 Clearance. Spectators, spectator parking areas, and dwellings, buildings or structures shall not be located within the display site. The site for the outdoor land or water display shall have at least 100-ft/in. (31-m/2.4mm) radius of internal mortar diameter of the largest shell to be fired as shown in Table 5608.4.

Exceptions:

1. This provision shall not apply to pyrotechnic special effects and fireworks displays using Division 1.4G materials before a proximate audience in accordance with NFPA 1126.
2. This provision shall not apply to unoccupied dwellings, buildings and structures with the approval of the building owner and the fire code official.

V. Add Table 5608.4 to read:

Table 5608.4 Distances for Outdoor Fireworks Display Sites: Minimum Separation Distances from Mortars to Spectators for Land and Water Displays									
Mortar Size ^a		Minimum Secured Diameter of Site		Vertical Mortars ^b		Angled Mortars ^c 1/3 offset		Mortars to Special Hazards ^d	
in.	mm	ft	M	ft	m	ft	m	ft	m
<3	<76	300	92	150	46	100	31	300	92
3	76	600	183	300	92	200	61	600	183
4	102	800	244	400	122	266	81	800	244
5	127	1000	305	500	152	334	102	1000	305
6	152	1200	366	600	183	400	122	1200	366
7	178	1400	427	700	213	467	142	1400	427
8	203	1600	488	800	244	534	163	1600	488
10	254	2000	610	1000	305	667	203	2000	610
12	305	2400	732	1200	366	800	244	2400	732
>12	Requires the approval of the fire official								

^a Aerial shells, mines, and comets shall be classified and described only in terms of the inside diameter of the mortar from which they are fired (e.g., 3-in. (76-mm) aerial shells, mines and comets are only for use in 3-in. (76mm) mortars).

^b Where the mortars are positioned vertically, the mortars shall be placed at the approximate center of the display site.

^c Mortars shall be permitted to be angled during a display to allow for wind and to carry shells away from the main spectator viewing areas. For angled mortars, the minimum secured diameter of the display site does not change. Only the location of the mortars within the secured area changes when the mortars are angled.

^d Note that this is only the distance to the special hazards. The minimum secured diameter of the display site does not change.

W. Add Sections 5608.4.1 and 5608.4.2 to read:

5608.4.1- Non-splitting, non-bursting comets and mines. For non-splitting or non-bursting comets and mines containing only stars or non-splitting or non-bursting comets, the minimum required radius of the display site shall be 50 feet per inch (15.24 m per 25.4 mm) of the internal mortar diameter of the largest comet or mine to be fired, one-half that shown in Table 5608.4.

5608.4.2- Special distance requirements. The minimum distance requirements of Table 5608.4 shall be adjusted as follows:

1. For chain-fused aerial shells and comets and mines to be fired from mortars, racks, or other holders that are sufficiently strong to prevent their being repositioned in the event of an explosive malfunction of the aerial shells, comets, or mines, the minimum required radius shall be the same as that required in Sections 5608.4 and 5608.4.1. For chain-fused aerial shells and comets and mines to be fired from mortars, racks, or other holders that are not sufficiently strong to prevent their being repositioned in the event of an explosive malfunction of the aerial shells, comets, or mines, or if there is doubt concerning the strength of racks holding chain-fused mortars, based upon the largest mortar in the sequence, the minimum required radius shall be double that required in Sections 5608.4 and 5608.4.1.

2. Distances from the point of discharge of any firework to a health care or detention and correctional facility, or the bulk storage of materials that have flammability, explosive, or toxic hazard shall be at least twice the distances specified in Table 5608.4.

3. The minimum required spectator separation distance for roman candles and cakes that produce aerial shells, comets, or mine effects shall be the same as the minimum required radius specified in Table 5608.4.

4. Aerial shells, comets and mines, and roman candles and cakes shall be permitted to be angled if the dud shells or components are carried away from the main spectator area and either of the following requirements is satisfied:

4.1. The offset specified in Table 5608.4 is followed.

4.2. The separation distance is correspondingly increased in the direction of the angle.

If the offset provided in Table 5608.4 is followed, the mortars or tubes shall be angled so that any dud shells or components fall at a point approximately equal to the offset of the mortars or tubes from the otherwise required discharge point but in the opposite direction.

13VAC5-51-151. IFC Chapter 57- Flammable and Combustible Liquids.

A. Add Section 5701.1.1 to read:

5701.1.1- Other regulations. Provisions of the Virginia State Water Control Board regulations 9VAC25-91 and 9VAC25-580 addressing the maintenance and operational aspects of underground and aboveground storage tanks subject to those regulations are hereby incorporated by reference to be an enforceable part of this code. Where differences occur between the provisions of this code and the incorporated provisions of the State Water Control Board regulations, the provisions of the State Water Control Board regulations shall apply.

Note: For requirements for the installation, repair, upgrade and closure of such tanks, see Section 414.6.2 of the USBC, Part I, Construction.

B. Change Section 5701.4 to read:

5701.4- Permits. Permits shall be required as set forth in Section 107.2.

C. Add the following exception to Section 5704.2.13.1.3 to read:

Exception: Underground storage tanks subject to the Virginia State Water Control Board regulation 9VAC25-580.

13VAC5-51-151.5. IFC Chapter 58: Flammable Gases and Flammable Cryogenic Fluids.

Change Section 5801.2 to read:

5801.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-152. (Repealed.)

13VAC5-51-152.5. IFC Chapter 59: Flammable Solids.

Change Section 5901.2 to read:

5901.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-153. IFC Chapter 60: Highly Toxic and Toxic Materials.

Change Section 6001.2 to read:

6001.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-154. IFC Chapter 61: Liquefied Petroleum Gases.

A. Change Section 6101.2 to read:

6101.2- Permits. Permits shall be required as set forth in Section 107.2. Distributors shall not fill an LP-gas container for which a permit is required unless a permit for installation has been issued for that location by the fire code official, except when the container is for temporary use on construction sites.

B. Add Section 6106.4 to read:

6106.4- DOTn cylinders filled on site. DOTn cylinders in stationary service that are filled on site and therefore are not under the jurisdiction of DOTn either shall be requalified in accordance with DOTn requirements or shall be visually inspected within 12 years of the date of manufacture or within five years from May 1, 2008, whichever is later, and within every five years thereafter, in accordance with the following:

1. Any cylinder that fails one or more of the criteria in Item 3 shall not be refilled or continued in service until the condition is corrected.
2. Personnel shall be trained and qualified to perform inspections.
3. Visual inspection shall be performed in accordance with the following:
 - 3.1. The cylinder is checked for exposure to fire, dents, cuts, digs, gouges, and corrosion according to CGA C-6, Standards for Visual Inspection of Steel Compressed Gas Cylinders, except that paragraph 4.2.1(1) of that standard (which requires tare weight certification), shall not be part of the required inspection criteria.
 - 3.2. The cylinder protective collar (where utilized) and the foot ring are intact and are firmly attached.
 - 3.3. The cylinder is painted or coated to retard corrosion.
 - 3.4. The cylinder pressure relief valve indicates no visible damage, corrosion of operating components, or obstructions.
 - 3.5. There is no leakage from the cylinder or its appurtenances that is detectable without the use of instruments.

3.6. The cylinder is installed on a firm foundation and is not in contact with the soil.

3.7. A cylinder that passed the visual inspection shall be marked with the month and year of the examination followed by the letter "E" (example: 10-01E, indicating requalification in October 2001 by the external inspection method).

3.8. The results of the visual inspection shall be documented, and a record of the inspection shall be retained for a five-year period.

Exception: Any inspection procedure outlined in Items 3.1 through 3.8 that would require a cylinder be moved in such a manner that disconnection from the piping system would be necessary shall be omitted, provided the other inspection results do not indicate further inspection is warranted.

C. Change Section 6111.2 to read:

6111.2- Unattended parking. The unattended parking of LP-gas tank vehicles shall be in accordance with Sections 6111.2.1 and 6111.2.2.

Exception: The unattended outdoor parking of LP-gas tank vehicles may also be in accordance with Section 9.7.2 of NFPA 58.

13VAC5-51-154.2. IFC Chapter 62: Organic Peroxides.

Change Section 6201.2 to read:

6201.2- Permits. Permits shall be required for organic peroxides as set forth in Section 107.2.

13VAC5-51-154.4. IFC Chapter 63: Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids.

Change Section 6301.2 to read:

6301.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-154.5. (Repealed.)

13VAC5-51-154.6. IFC Chapter 64: Pyrophoric Materials.

Change Section 6401.2 to read:

6401.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-154.7. IFC Chapter 65: Pyroxylin (Cellulose Nitrate) Plastics.

Change Section 6501.2 to read:

6501.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-154.8. IFC Chapter 66: Unstable (Reactive) Materials.

Change Section 6601.2 to read:

6601.2- Permits. Permits shall be required as set forth in Section 107.2.

13VAC5-51-155. IFC Chapter 80: Referenced Standards.

Change the referenced standards as follows (standards not shown remain the same):

Standard reference number	Title	Referenced in code section number
CGA C-6 (2001)	Standards for Visual Inspection of Steel Compressed Gas Cylinders	6106.4
UL 87A-12	Outline of Investigation for Power-Operated Dispensing Devices for Gasoline and Gasoline/ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent	2306.8.1
UL 1278-00	Standard for Movable and Wall- or Ceiling-Hung Electric Room Heaters	605.10.1

13VAC5-51-160 to 13VAC5-51-200. [Repealed]

3/8/16

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C-103.3(2) cdpVA-15

Proponent : College Laboratory Sub-workgroup (of DHCD's Workgroup Two) DHCD Staff Contact: Vernon.Hodge@dhcd.virginia.gov

2012 Virginia Construction Code

103.3 Change of occupancy. No change of occupancy shall be made in any structure when the current USBC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner or the owner's agent shall comply with the following:

1. When involving Group I-2 or I-3, written application shall be made to the local building department for a new certificate of occupancy and the new certificate of occupancy shall be obtained prior to the new use of the structure. When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3. In addition, the applicable accessibility provisions of Section 1012.8 of Part II of the *Virginia Uniform Statewide Building Code*, also known as the "*Virginia Rehabilitation Code*," or the "VRC" shall be met.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

2. In other than Group I-2 or I-3, the provisions of the VRC for change of occupancy shall be met.

103.3.1 Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B teaching and research laboratories in educational occupancies above the 12th grade would constitute a change of occupancy, Section 302.6 of the VRC shall be permitted to be used as an acceptable alternative to compliance with change of occupancy requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H.

SECTION 202 DEFINITIONS

CHEMICAL FUME HOOD. A ventilated enclosure designed to contain and exhaust fumes, gases, vapors, mists and particulate matter generated within the hood.

LABORATORY SUITE. A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms, and corridors that are contiguous with the laboratory area, and are constructed in accordance with section 427.3.

TEACHING AND RESEARCH LABORATORY. A building or portion of a building where hazardous materials are stored, used and handled for the purpose of testing, analysis, teaching, research or developmental activities on a nonproduction basis rather than in a manufacturing process.

2015 International Building Code

(As Part of the 2015 Virginia Construction Code)

[F] 414.2 Control areas. *Control areas* shall comply with Sections 414.2.1 through 414.2.5 and the *International Fire Code*.

Exception: Higher education teaching and research laboratories shall be permitted to comply with Section 427.

SECTION 427 HIGHER EDUCATION LABORATORIES

427.1 Scope. Group B teaching and research laboratories in educational occupancies above the 12th grade complying with the requirements of this section shall be permitted to comply with Tables 427.3, 427.4(1), or 427.4(2) without requiring classification as a Group H occupancy. Except as specified in this section, such laboratories shall comply with all applicable provisions of this code. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

427.2 Application. The provisions of this section shall be applied as exceptions or additions to applicable requirements of this code.

427.3 Laboratory suite construction. Where laboratory suites are provided, they shall be constructed in accordance with this section. The number of laboratory suites and percentage of maximum allowable quantities of hazardous materials in laboratory suites shall be in accordance with Table 427.3.

427.3.1 Separation from adjacent areas. Laboratory suites shall be separated from other portions of the building in accordance with the most restrictive of either (i) Table 427.3 with fire barriers constructed in accordance with Section 707 and horizontal assemblies constructed in accordance with Section 711, or (ii) Section 508.4. Where individual laboratories within a laboratory suite are separated from each other, the separation shall consist of one-hour fire barriers.

Exception: Where an individual laboratory suite occupies more than one story, the fire resistance rating of intermediate floors contained within the laboratory suite shall comply with the requirements of this code.

427.3.2 Separation from other laboratory suites. Laboratory suites shall be separated from other laboratory suites in accordance with Table 427.3.

427.3.3 Floor assembly fire resistance. The floor assembly supporting the laboratory suite and the construction supporting the floor of the laboratory suite shall have a fire resistance rating of not less than 2 hours.

Exception: The floor assembly of the laboratory suite and the construction supporting the floor of the laboratory suite are allowed to be 1-hour fire resistance rated in buildings of Types IIA, IIIA and VA construction, provided that the building is 3 or fewer stories.

427.3.4 Maximum number. The maximum number of laboratory suites per floor shall be

in accordance with Table 427.3. Where a building contains both laboratory suites complying with Section 427.3 and control areas complying with Section 414.2, the total number of laboratory suites and control areas shall not exceed the maximum number of laboratory suites in accordance with Table 427.3.

427.3.5 Standby or emergency power. Standby or emergency power shall be provided in accordance with Section 414.5.2 where laboratory suites are located above the sixth story above grade plane or located in a story below grade plane.

427.3.6 Ventilation. Ventilation shall be in accordance with the International Mechanical Code. The design and installation of ducts from chemical fume hoods shall be in accordance with NFPA 91.

427.3.7 Liquid tight floor. Portions of the laboratory suite where hazardous materials are present shall be provided with a liquid tight floor.

427.3.8 Automatic fire sprinkler systems. Buildings shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

427.3.9 Automatic fire alarm and detection system. Laboratory suites shall be equipped throughout with an automatic fire detection system in accordance with Section 907.2. The building shall be equipped throughout with an automatic fire alarm system in accordance with Section 907.2.

427.3.10 Percentage of maximum allowable quantity in each laboratory suite. The percentage of maximum allowable quantities in each laboratory suite shall be in accordance with Table 427.3.

**TABLE 427.3
DESIGN AND NUMBER OF LABORATORY SUITES PER FLOOR**

<u>Floor Level</u>		<u>Percentage of the Maximum Allowable Quantity per Lab Suite^a</u>	<u>Number of Lab Suites per Floor</u>	<u>Fire-Resistance Rating for Fire Barriers in Hours^b</u>
<u>Above Grade Plane</u>	<u>21+</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>16-20</u>	<u>25</u>	<u>1</u>	<u>2</u>
	<u>11-15</u>	<u>50</u>	<u>1</u>	<u>2</u>
	<u>7-10</u>	<u>50</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>75</u>	<u>4</u>	<u>1</u>
	<u>3</u>	<u>100</u>	<u>6</u>	<u>1</u>
	<u>1-2</u>	<u>100</u>	<u>8</u>	<u>1</u>
<u>Below Grade Plane</u>	<u>1</u>	<u>75</u>	<u>4</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Fire barriers shall include walls, floors and ceilings necessary to provide separation from other portions of the building.

427.4 Teaching and research laboratories utilizing control areas. Group B teaching and research laboratories in educational occupancies above the 12th grade utilizing control areas are permitted to increase amounts of hazardous materials stipulated in 414.2 without the laboratories being classified as Group H. The percentage of maximum allowable quantities of hazardous materials per control area and the number of control areas permitted at each floor level within a building shall be permitted to comply with Table 427.4(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or shall be permitted to comply with Table 427.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

**TABLE 427.4(1)
DESIGN AND NUMBER OF CONTROL AREAS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 WITH GROUP B TEACHING AND RESEARCH LABORATORIES IN EDUCATIONAL OCCUPANCIES ABOVE THE 12TH GRADE**

<u>Floor Level</u>		<u>Percentage of the Maximum Allowable Quantity per Control Area^a</u>	<u>Number of Control Areas per Floor</u>	<u>Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours^b</u>
<u>Above Grade Plane</u>	<u>Higher than 20</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>11-20</u>	<u>10</u>	<u>1</u>	<u>2</u>
	<u>7-10</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>50</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>1-2</u>	<u>100</u>	<u>4</u>	<u>1</u>
	<u>Below Grade Plane</u>	<u>1</u> <u>2</u> <u>Lower than 2</u>	<u>75</u> <u>50</u> <u>Not Allowed</u>	<u>3</u> <u>2</u> <u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.
b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

**TABLE 427.4(2)
DESIGN AND NUMBER OF CONTROL AREAS IN BUILDINGS NOT EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 WITH GROUP B TEACHING AND RESEARCH LABORATORIES IN EDUCATIONAL OCCUPANCIES ABOVE THE 12TH GRADE**

	<u>Percentage of the Maximum Allowable Quantity</u>	<u>Number</u>	<u>Fire-Resistance Rating for Fire Barriers and</u>

<u>Floor Level</u>		<u>per Control Area^a</u>	<u>of Control Areas per Floor</u>	<u>Horizontal Assemblies in Hours^b</u>
<u>Above Grade Plane</u>	<u>Higher than 9</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>10</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>1-2</u>	<u>100</u>	<u>4</u>	<u>1</u>
<u>Below Grade Plane</u>	<u>1</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

427.4.1 Separation requirements. Control areas shall be separated from each other and from other non-control areas by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

427.4.2 Fire-resistance-rating requirements. The required fire-resistance rating for fire barriers shall be in accordance with Table 427.4(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or in accordance with Table 427.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The floor assembly of the control area and the construction supporting the floor of the control area shall have a fire-resistance rating in accordance with Table 427.4(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or in accordance with Table 427.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Exception: The floor assembly of the control area and the construction supporting the floor of the control area are allowed to be 1-hour fire resistance rated in buildings of Types IIA, IIIA and VA construction, provided that the building is 3 or fewer stories.

427.4.3 Standby or emergency power. Standby or emergency power shall be provided where control areas are located above the sixth floor level above grade plane or located in a floor level below grade plane.

427.4.4 Restricted materials in storage and use. Where approved by the building official, the storage and use of the following hazardous materials prohibited by Table 307.1.1 in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, shall be allowed within a control area at 25% of Table 307.1.1 limits for a building equipped throughout with an automatic sprinkler system:

1. Pyrophorics
2. Class 4 Oxidizers

No additional quantity increases shall be allowed. All such materials shall be stored and used in accordance with Section 5001.7 of the SFPC.

427.4.5 Automatic fire alarm and detection system. The building shall be equipped throughout with an automatic fire alarm system in accordance with Section 907.2 and control areas where hazardous materials are used or stored shall be equipped throughout with an automatic fire detection system in accordance with Section 907.2.

427.4.6 Ventilation. Ventilation shall be in accordance with the International Mechanical Code.

[F] 907.2.2 Group B. An automatic fire alarm and detection system shall be provided in Group B occupancies where an increase in hazardous materials is allowed in accordance with Section 427. A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B *occupant load* of all floors is 500 or more.
2. The Group B *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*.
3. The *fire area* contains an ambulatory care facility.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

CHAPTER 35 REFERENCED STANDARDS

NFPA 45-15 Standard on Fire Protection for Laboratories Using Chemicals

NFPA 91-15 Standard for Exhaust Systems for Air Conveying of Vapors, Mists, and Particulate Solids

2015 International Existing Building Code

(As Part of the 2015 Virginia Rehabilitation Code)

302.6 Change of occupancy in existing Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B testing and research laboratories in educational occupancies above the 12th grade would constitute a change of occupancy, this section shall be permitted to be used as an acceptable alternative to compliance with change of occupancy requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

302.6.1 Hazardous materials in existing Group B teaching and research laboratories. The percentage of maximum allowable quantities of hazardous

materials per control area and the number of control areas permitted at each floor level within an existing building shall be permitted to comply with Table 302.6.1(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC or shall be permitted to comply with Table 302.6.1(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

TABLE 302.6.1(1)
DESIGN AND NUMBER OF CONTROL AREAS IN EXISTING BUILDINGS
EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN
ACCORDANCE WITH SECTION 903.3.1.1 OF THE VCC WITH GROUP B
TEACHING AND RESEARCH LABORATORIES IN EDUCATIONAL OCCUPANCIES
ABOVE THE 12TH GRADE

<u>Floor Level</u>		<u>Percentage of the Maximum Allowable Quantity per Control Area^a</u>	<u>Number of Control Areas per Floor</u>	<u>Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours^b</u>
<u>Above Grade Plane</u>	<u>Higher than 20</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>10-20</u>	<u>10</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>50</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>2</u>	<u>100</u>	<u>3</u>	<u>1</u>
	<u>1</u>	<u>100</u>	<u>4</u>	<u>1</u>
<u>Below Grade Plane</u>	<u>1</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

TABLE 302.6.1(2)
DESIGN AND NUMBER OF CONTROL AREAS IN EXISTING BUILDINGS NOT
EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN
ACCORDANCE WITH SECTION 903.3.1.1 OF THE VCC WITH GROUP B
TEACHING AND RESEARCH LABORATORIES IN EDUCATIONAL OCCUPANCIES
ABOVE THE 12TH GRADE

	<u>Percentage of the Maximum Allowable Quantity</u>	<u>Number of Control Areas per</u>	<u>Fire-Resistance Rating for Fire Barriers and</u>

<u>Floor Level</u>		<u>per Control Area^a</u>	<u>Floor</u>	<u>Horizontal Assemblies in Hours^b</u>
<u>Above Grade Plane</u>	Higher than 9	<u>5</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>10</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>2</u>	<u>100</u>	<u>3</u>	<u>1</u>
	<u>1</u>	<u>100</u>	<u>4</u>	<u>1</u>
<u>Below Grade Plane</u>	<u>1</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

302.6.1.1 Automatic fire alarm and detection systems. An automatic fire alarm system shall be provided throughout the building in accordance with Section 907 of the VCC. An automatic fire detection system shall be provided in the control area in accordance with Section 907 of the VCC where pyrophics or Class 4 oxidizers are used and the building is not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

302.6.1.2 System supervision and monitoring. Automatic fire detection systems shall be electronically supervised and monitored by an approved supervising station or, where approved, shall initiate an audible and visual signal at a constantly attended on-site location.

CHAPTER 16 REFERENCED STANDARDS

NFPA 45-15 Standard on Fire Protection for Laboratories Using Chemicals

2015 International Fire Code

(As Part of the 2015 Virginia Statewide Fire Prevention Code)

CHEMICAL FUME HOOD. A ventilated enclosure designed to contain and exhaust fumes, gases, vapors, mists and particulate matter generated within the hood.

LABORATORY SUITE. A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms, and corridors that are contiguous with

the laboratory area, and are constructed in accordance with Section 427.3 of the VCC.

SPECIAL EXPERT. An individual who has demonstrated qualifications in a specific area, outside the practice of architecture or engineering, through education, training and experience.

TEACHING AND RESEARCH LABORATORY. A building or portion of a building where hazardous materials are stored, used and handled for the purpose of testing, analysis, teaching, research or developmental activities on a nonproduction basis rather than in a manufacturing process.

5001.7 Operational requirements for Group B teaching and research

laboratories. Teaching and research laboratories in Group B educational occupancies above the 12th grade utilizing Section 427 of the VCC or Section 302.6 of the VRC shall comply with this section and other applicable requirements of this code. In the case of conflicts between the requirements of Section 427 of the VCC or Section 302.6 of the VRC and provisions of this code other than those set out in this section, Section 427 of the VCC or Section 302.6 of the VRC, as applicable, shall govern.

5001.7.1 Chemical safety reviews. Operating and emergency procedures planning and documentation shall be as set out in Sections 5001.3.3.11 through 5001.3.3.17. Such documentation shall be prepared by laboratory safety personnel or special experts, and shall be made available in the workplace for reference and review by employees. Copies of such documentation shall be furnished to the fire code official for review upon request.

5001.7.2 Hazardous materials handling. Receiving, transporting on site, unpacking and dispensing of hazardous materials shall be carried out by persons trained in proper handling of such materials and shall be performed in accordance with Chapters 50 through 67, as applicable.

5001.7.3 Hazard identification signage. Warning signs for other than building components shall be provided in accordance with Section 5003.5.

5001.7.4 Maintenance of equipment, machinery and processes. Maintenance of equipment, machinery and processes used with hazardous materials shall comply with Section 5003.2.6.

5001.7.5 Time sensitive materials. Containers of materials that have the potential to become hazardous during prolonged storage shall be dated when first opened, and shall be managed in accordance with NFPA 45 Section 8.2.4.4.1.

5001.7.6 Maintenance of storage, dispensing, use and handling requirements. Storage, dispensing, use and handling requirements in the VCC or VRC shall be maintained. Operational requirements not affecting the manner of construction shall comply with this chapter and Chapters 51 through 67, as applicable.

5001.7.7 Hazardous wastes. Storage, dispensing, use and handling of hazardous waste shall comply with this chapter and Chapters 51 through 67, as applicable.

5001.7.8 Container Size. The maximum container size for all hazardous materials shall be 5.3 gallons for liquids, 50 pounds for solids, 100 cf. for health hazard gases per table 5003.1.1(2) and 500 cf. for all other gases in accordance with Table 5003.1.1(1).

Exception: Hazardous waste collection containers, for other than Class I and Class II flammable liquids, are permitted to exceed 5.3 (20L) gallons where approved.

5001.7.9 Density. Quantities of Class I, II & IIIA combustible or flammable liquids in storage and use within control areas or laboratory suites shall not exceed 8 gallons (30 liters) per 100 square feet of floor area, with not more than 4 gallons (15 liters) per 100 square foot being in use. Quantities of Class I flammable liquids in storage and use shall not exceed 4 gallons per 100 sf of floor area with not more than 2 gallons (7.5 liters) being in use. The maximum in use in open systems is limited to 10% of these quantities. Densities shall be reduced by 25 percent on the 4th through 6th floor levels above grade plane of the building and 50% above the 6th floor level. The density is to be reduced to 50% of these values for buildings that are not protected throughout with an approved automatic fire sprinkler system. Regardless of the density, the maximum allowable quantity per control area or laboratory suite shall not be exceeded.

Exception: Density limits may be exceeded in designated hazardous waste collection areas or rooms within a control area or laboratory suite, but stored quantities shall not exceed the maximum allowable quantity per laboratory suite or control area.

5001.7.10 Restricted materials in storage. Storage of pyrophorics and Class 4 oxidizers prohibited by Table 5003.1.1(1) in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC shall be allowed within a control area at 25 percent of the limits in Table 5003.1.1(1) for a building equipped throughout with an automatic sprinkler system, with no additional increases allowed, provided that such materials are stored in accordance with all of the following:

1. Containers shall be completely sealed and stored according to the manufacturer's recommendations.
2. Storage shall be within approved hazardous materials storage cabinets in accordance with Section 5003.8.7, or shall be located in an inert atmosphere glove box in accordance with NFPA 45 Section 7.11.
3. The storage cabinet or glove box shall not contain any storage of incompatible materials.

5001.7.11 Restricted materials in use. Use of pyrophorics and Class 4 oxidizers prohibited by Table 5003.1.1(1) in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC shall be allowed within a control area at 25 percent of the limits in Table 5003.1.1(1) for buildings equipped throughout with an automatic sprinkler system, with no additional increases allowed, provided that such materials are used in accordance with all of the following:

1. Use shall be within an approved chemical fume hood listed in accordance with UL 1805, or in an inert atmosphere glove box in accordance with NFPA 45 Section 7.11, or other approved equipment designed for the specific hazard of the material.
2. Combustible materials shall be kept at least two feet (0.610 m) away from the work area, except for those items directly related to the research.
3. A portable fire extinguisher appropriate for the specific material shall be provided

within 20 feet of the use in accordance with Section 906.

CHAPTER 80 REFERENCED STANDARDS

NFPA 45-15 Standard on Fire Protection for Laboratories Using Chemicals

UL 1805-2002 Standard for Laboratory Hoods and Cabinets

Reason:

DHCD Staff Note: Changes to the proposal subsequent to the July 20, 2016 Workgroup Two meeting are outlined in the document below:

[Changes to Proposal](#)

This proposed code change attempts to address the limiting factors of MAQs within facilities (via the use of control areas) by answering the following questions:

1. How do we increase MAQs beyond those already allowed while still incorporating an acceptable level of safety, protection, and/or fire resistance ratings?
2. How do we apply these requirements to existing buildings?
3. How do we accomplish the first two without a large re-write of the code (i.e., Group L) or relying on a standard that may not be completely written in enforceable terms (i.e., NFPA 45)?

The answer to question #1 above is to allow for an increased number of control areas - which would in effect, allow for increased MAQs per floor level. Providing an acceptable level of safety is addressed by limiting this change to apply only to Group B labs and by considering the following:

- in Group B laboratories, the use of hazardous chemicals is generally limited to small quantities used on a short-term basis and in operations where the chemicals and procedures change frequently. 29 CFR 1910.1450, which is referred to as the 'Laboratory Standard' requires the development and implementation of a formal, written, and employee-accessible program, referred to as a Chemical Hygiene Plan (CHP), where this plan must be capable of protecting employees (and users) from health hazards associated with hazardous chemicals used in the laboratory, and
- where research funding is obtained from Agencies such as the National Institute of Health (NIH), development of a Chemical Hygiene Plan for Laboratory operations is already a requirement, and
- in such Group B labs, the students and faculty tend to be more careful in their handling of hazardous materials, and
- the students tend to be better educated and more closely supervised, and
- such facilities tend to undergo more inspections, and
- many Group B facilities (i.e., higher education) have dedicated departments whose mission is to ensure proper procedures and safety precautions are adhered to and implemented.

The level of protection and fire resistance ratings are addressed by requiring a minimum 2-hour enclosure from the 3rd floor level and higher (4th floor level or higher is allowed now). Also, since control areas are required to be compartmentalized and completely enclosed (all sides, top, and bottom), any additional control areas allowed under this code change proposal would be required to be completely separated from the remainder of the facility and from other control areas.

It has been said that approximately 90% of the current higher education laboratory facilities are 4 stories or less - including new and existing buildings, so the number of facilities this code change would affect would potentially be a smaller percentage (since the major benefit is for buildings 4 stories and higher).

Per the VDFP fire data "Tally" charts (http://vdfp.virginia.gov/fire_data_statistics/index.htm), within

the last ten years, when it comes to laboratories there have been:

- 0.03% frequency percentage of calls,
- zero deaths (civilian or fire fighters),
- two injuries (to fire fighters), and
- minimal property damage (approximately \$230,000 over the 10-year period with \$200,000 of that in one year alone - 2005).

Empirical data suggests that laboratories (including Group B higher education) appear to be relatively safe occupancies. The imposition of additional performance-based safety requirements in the SFPC where increased quantities will be allowed to be used further enhance the safety of operations using hazardous materials.

The answer to question #2 above is to allow existing facilities to benefit from the Virginia amendments and thus, existing Group B laboratories could utilize the proposed amendments included in this code change proposal, rather than be evaluated under the building code in which it was constructed.

If you accept the answers to #1 and #2, then the answer to question #3 above could be accomplished by adding a new subsection to 414.2 in the VCC and a new subsection 302.6 in the VRC.

The new definitions are provided to better describe what a "testing and research lab" is and also mimic the language use in 2015 IMC 510.1.

NATIONAL IFC WORKGROUP SUPPORTING STATEMENT: [copied verbatim without any edits and therefore, refers to information that is not a part of this code change proposal, but still conveys the conceptual approach]

There is quite possibly no industry more important to lives across the world than higher education academic institutions. The advance of technologies, science, medicine and our knowledge of the world often relies on having vibrant and successful academic institutions.

These academic institutions often have chemistry, biology, medical, engineering and other laboratories where hazardous materials are used. The IFC does not specifically address teaching and research laboratories, so users must try to apply general hazardous materials provisions, which oftentimes are not appropriate for specialized academic laboratory settings. The following is a list of several conditions typically present in academic laboratories

that make them unique:

1. Lower chemical density in individual research laboratories. In a teaching and research environment, there are often many small laboratories within a building that are using small quantities of hazardous materials in each location. Individually, they do not store or use a large quantity of hazardous materials, but together, they may often exceed the maximum allowable quantities for the control area. This lower chemical density often mitigates the overall risk, but the IFC currently has no provisions to recognize this condition.

2. Ongoing staff oversight from "Special Experts" in laboratory safety. Many higher education institutions have a full cadre of faculty and staff with chemical expertise. These "Special Experts" often include, but are not limited to: Fire Marshals, Industrial Hygienists, Radiation Safety Officers, Biological Safety Officers, Chemical Hygiene Officers and Environmental Health and Safety Officers. These individuals are an integral part of the preparation/review of laboratory safety documentations, as well as regularly scheduled safety audits. Fire and life safety expertise and oversight on our campuses is continually increasing with the addition of these highly capable professionals.

3. Limited, or "directed", funding streams. Also unique to academic institutions are the funding sources for research. In a "non-profit" teaching and research environment, the majority of research is funded through grants and endowments. Unfortunately, many grants only support the costs of research personnel and equipment, not structural upgrades to accommodate newer research processes.

4. Mixed-use occupancies. A typical university science building will house laboratories, office

space, storerooms, classrooms and lecture halls. The current limits on hazardous materials are so restrictive on upper floors that many universities are forced to locate classrooms and lecture halls on the upper floors so that they can take full advantage of the hazardous materials quantities allowed on the lower floors. This results in moving large numbers of students through hallways, past laboratories to get to the upper floors. They will also have to exit back down the same routes in the event of an emergency.

This proposal introduces a post-secondary academic laboratory chapter to address these unique circumstances. University fire and life safety professionals from across the United States have collaborated on writing this chapter. Conscientious effort has been made to balance the proposed IFC modifications with enhanced administrative, emergency planning and structural provisions.

This chapter also introduces some important provisions from NFPA 45, Fire Protection for Laboratories. Although the IFC references many national standards on specific topics, there are no such references currently for laboratories. This standard contains many laboratory specific requirements and design professionals rely heavily upon this national standard for current laboratory designs.

Specifically, the chapter addresses three primary needs: 1) increasing general laboratory safety requirements, 2) increasing MAQ's in large or multi-story laboratories, or laboratories located in multi-story buildings and, 3) allowing very small quantities of currently prohibited hazardous materials in non-sprinklered laboratory buildings. A brief description of each is as follows:

1. Increased general laboratory safety requirements: This proposal introduces a post-secondary academic laboratory chapter in to the IFC. Currently, there is no teaching/research laboratory specific chapter in the IFC, and there are no references to NFPA 45 (Fire Protection for Laboratories). This new chapter fills a much needed gap in the IFC, and provides for enhanced safety requirements in these academic laboratories.

2. Control Area Limitations: As post-secondary campuses across the world grow to meet increasing populations, they often are landlocked, and require that new buildings are built taller and/or larger. This is particularly true in large metropolitan areas. The current "Control Area" restrictions in the ICC codes severely restrict functioning laboratories on upper floor levels or in larger buildings.

In response to this critical issue, numerous jurisdictions have adopted state or local amendments to allow for greater numbers of control areas and larger percentages of MAQs in academic and /or non-production laboratories. Such jurisdictions include California, Arizona, Minnesota, Seattle and New York City. One of the primary purposes of this proposal is to provide standardized model code language to address this topic.

This chapter provides an alternate design approach for such scenarios where traditional control area limitations are not feasible, and where building Group H-Occupancies is not possible. The "Laboratory Suite" concept gives users an option to allow more flexibility in hazardous materials use, in exchange for additional administrative and structural safeguards, while still remaining a "B" occupancy.

3. Non-Sprinklered Limitations: There are thousands of existing post-secondary academic institutions, with some dating back to 1800's, where retrofitting automatic sprinklers is not practical. This proposal addresses a critically important issue to selected laboratories in existing, non-sprinklered buildings, who need very small quantities of materials that have blanket restrictions in non-sprinklered buildings. This proposal provides a limited exception to allow very small quantities of such materials when specific mitigation controls are provided.

PART 1 REASON:

Section 3801. Provides general scoping information. It clarifies that the chapter applies to both existing laboratories in existing buildings and new laboratories as referenced in the sections.

The definition used for laboratories mirrors the definition found in the International Mechanical Code, with the addition of language to clarify that the chapter is limited to "Laboratories in higher education institutions beyond the 12th grade".

Section 3802. Provides definitions for new terms introduced in this chapter. The term "Special Expert" is in the International Performance Code in the appendix. It was utilized in this chapter to reflect the high level of faculty and staff safety professionals available at many academic

institutions.

Section 3803. Requires additional safety pre-planning for all laboratories or laboratory suites utilizing this chapter, also consistent with laboratory safeguards found in NFPA 45. Enhanced safety requirements found in this section include:

1. New hazard analysis documentation shall include: Process Hazard Analysis, Pre-startup Safety Review, Operating and Emergency Procedures, Management of Change, Accident Procedures, Consequence Analysis and Safety Audits. Requires that such documentation shall be submitted to the fire code official. (IFC Section 5001).
2. Time-sensitive materials shall be dated and pro-actively managed. (NFPA 45).
3. Maximum container size of Class I flammable liquids is 5.3 gallons. (NFPA 45).
4. Density of Class I flammable liquids in storage and use shall be no greater than 8 gallons per 100 square feet of floor area. (NFPA45).

Section 3804. Provides the "Laboratory Suite" design option in addition to traditional control area options. Enhanced safety requirements in this section include:

1. All of those listed above in Section 3803.
2. Rated fire barriers for compartmentation of laboratory suites within buildings.
3. In laboratories above the 6th story, or in a story below grade plane, requirements for standby or emergency power for safety-related equipment and enhanced automatic sprinkler protection.
4. Automatic sprinkler design and density exceeding that which would be required by NFPA 45.

If the vertical fire barrier between lab suites is required to be two-hour rated, a fire rated duct enclosure, UL listed duct wrap, or multiple building shafts is required. Footnote c in the table allows the vertical fire barriers between laboratory suites on a floor to be one-hour rated because of the reduced quantities of hazardous materials in each laboratory suite on the floors above the 6th story, and additional safety provisions in Chapter 38 which apply to all laboratories utilizing this chapter. In addition, chemical exhaust ducts routed through the one-hour rated barriers would be permitted to be installed without fire dampers, where the duct needs to be routed to the nearest chemical exhaust shaft. Fire dampers are not installed in laboratory exhaust ducts to maintain exhaust ventilation in laboratories in the event of a fire. In the IBC, Section 714.1.1 and Section 717.5.2, Exception 3; and IMC 607.5.5 allow exhaust system ducts to penetrate fire rated barriers and fire rated shafts without a fire damper. These provisions carry significant importance and allow multiple laboratory suites per floor of a building. The footnote has no effect on other provisions of the code and does not change the structural fire resistance requirements of IBC Chapter 6, or the continuity requirements of IBC Chapter 7.

Historical fire data over the last 25 years has shown that the vast majority of laboratory fires do not typically extend beyond the area, or even the room of origin. This is primarily due to the limited quantities of hazardous materials in use, and the following safety features that are incorporated into laboratory designs:

1. Ventilation systems provide large volumes of airflow through laboratories to continuously remove hazardous vapors, fumes and gases.
2. Fume hoods provide local ventilation control for containment and removal of hazardous vapors, fumes and gases during the use of hazardous materials.
3. Automatic fire sprinkler systems can confine the fires to the room of origin
4. Fire alarm systems provide prompt notification to building occupants and/or emergency responders.

All of these structural safety features are required in some combination in laboratories utilizing this chapter, as well as the additional NFPA 45 requirements for monitoring of time-sensitive materials, limitations on container sizes and limiting the density of flammable liquids over the floor area of laboratory space.

Section 3805. Provides and clarifies general hazardous materials requirements for non-sprinklered laboratories. Provides an option to allow for very small quantities of prohibited materials in non-sprinklered laboratories. Enhanced safety requirements in this section include:

1. All of those listed above in Section 3803.
2. Enhanced storage requirements in accordance with NFPA 45.
3. Prohibition of storage of any incompatible materials.
4. Use of hazardous materials use must be in a chemical fume hood, glove box or other approved laboratory equipment designed for the specific hazard.
5. The work area must be free of all unnecessary combustible materials.
6. There must be an appropriate extinguishing media located within 20 feet.

Section 3806. Provides requirements for existing laboratories in existing sprinklered buildings. Enhanced safety requirements in this section include all of those in Section 3803, including complete hazard analysis and safety audits, and limits on container sizes for all hazardous materials and density limits on flammable liquids.

PART 2 REASON:

Modifies IBC 414.2 to identify that "Laboratory Suites" are an exception to traditional control area provisions.

PART 3 REASON:

Modifies IFC 604.2 to identify that "Laboratory Suites" require emergency or standby power.

PART 4 REASON:

Adds NFPA 45 as recognized standard.

This chapter was written and reviewed by a national taskforce made up of fire and life safety professionals from colleges, universities, municipal fire organizations and private industry across the United States. Taskforce members are individuals representing their own institutions, as well as members who were assigned participants by national college and university safety associations.

National endorsements:

Campus Safety, Health, and Environmental Management Association (CSHEMA)

This proposal [their proposal is similar (e.g., uses the new IBC but existing NFPA 45 concept of laboratory suites), but not identical to this code change proposal (e.g., which uses the existing IBC concept of control areas)] is submitted by the ICC Fire Code Action Committee (FCAC). The FCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes with regard to fire safety and hazardous materials in new and existing buildings and facilities and the protection of life and property in wildland urban interface areas. In 2014 and 2015 the Fire-CAC has held 5 open meetings. In addition, there were numerous conference calls, Regional Work Group and Task Group meetings for the current code development cycle, which included members of the committees as well as any interested parties, to discuss and debate the proposed changes. Related documentation and reports are posted on the FCAC website

Cost Impact: Although the cost of construction may increase (because you would be constructing more control areas that are separated by fire barriers and horizontal assemblies), such Group B laboratories may be in a much better position to apply for research grants and funding, and could possibly attract the top students and faculty that might otherwise go to other universities or businesses.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Consensus for Approval

Workgroup 2 Reason: 7/20/16 meeting: Kenny Payne spoke-approved at the national level by the fire officials-work group pretty much agrees with this proposal.

Vernon Hodge stated after talking with Zack Adams and Chris Raha, only substantiated changes

are needed and the comments can be placed in cdpVA.

Rick Witt stated that this is just an option since it is not mandated. I support this issue and there seems to be consensus and sees no reason why not to move this forward.

8/17/16 meeting: Zack spoke on the proposal-consensus for approval

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

C-103.3(2) cdpVA-15

F-112.2 cdpVA-15

Proponent : Richard Witt (wittr@chesterfield.gov)

2012 Virginia Statewide Fire Prevention Code

112.2 Membership.

The BFPCA shall consist of at least five members appointed by the local governing body and having terms of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the local governing body. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period. The BFPCA shall meet ~~at least once annually~~ as necessary to assure a duly constituted board, appoint officers as necessary and receive such training on the code as may be appropriate or necessary from staff of the locality.

Reason: This change will bring consistency with the other codes that were modified to reflect the changed language during the last code cycle. In the previous cycle it was determined that it was best for individual localities to determine the frequency of their Local Appeals Board meetings based on the individual needs of the localities.

Cost Impact: This change could save localities money since most appeals Board members are reimbursed at some rate for their time and expenses.

Workgroup Recommendation

Workgroup 1 Recommendation Recommendation: Consensus for Approval

Workgroup 1 Reason: None

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-112.2 cdpVA-15

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F-5003.1.4 cdpVA-15

Proponent : James Dawson (dawsonj@chesterfield.gov)

2015 International Fire Code

5003.3.1.4 Responsibility for cleanup. The person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, without cost to the jurisdiction. Where deemed necessary by the *fire code official*, cleanup can be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be ~~borne by~~ the responsibility of the *owner*, operator or other person responsible for the unauthorized discharge.

NOTE: Owners and operators of certain underground and above ground petroleum storage tanks may have access to the Virginia Petroleum Storage Tank Fund for reimbursement of some cleanup costs associated with petroleum discharges from these tanks. See Article 10 of Title 62.1 (Section 62.1-44.34:10 et seq. of the Code of Virginia.

Reason: This proposal was developed in cooperation with Mike O'Conner and Renee Hooper of VA DEQ in response to concerns over the original change to 5003.3.1.4. This change makes it more clear that the funding source for the cleanup effort is irrelevant but the responsibility for the cleanup remains with the owner or operator of these facilities. An informational note was added to inform the enforcement community of a state DEQ funding source that is available to certain operators of these facilities.

Cost Impact: There are no cost impacts associated with this change.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Consensus for Approval

Workgroup 2 Reason: None

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-5003.1.4 cdpVA-15

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CB-906.1 cdpVA-15

Proponent : Jim Tidwell, Representing Fire Equipment Manufacturers' Association (jimtidwell@tccfire.com)

2012 Virginia Construction Code

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

1. In Groups A, B, E, F, H, I, M, R-1, R-4, and S occupancies.

Exceptions:

- ~~1. In Groups A, B, and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.~~
- ~~2. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations and the access to such extinguishers shall be permitted to be locked.~~

(remainder of section unchanged)

2012 Virginia Statewide Fire Prevention Code

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

1. In Groups A, B, E, F, H, I, M, R-1, R-4, and S occupancies.

Exceptions:

- ~~1. In Groups A, B, and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.~~
- ~~2. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations and the access to such extinguishers shall be permitted to be locked.~~

(remainder of section unchanged)

Reason: The Virginia Building and Fire Codes require portable fire extinguishers in almost all occupancies (A, B, E, F, H, I, M, R-1, R-4, and S). However, the code provides an exception for three occupancies if they are equipped with quick response sprinklers (A, B, and E). The reason for this exception is unknown, and has no known data to support it. This proposed code change would remove the exception, which is consistent with the action of the ICC in the 2012 and 2015 model codes.

Portable fire extinguishers are an important and cost effective layer of fire protection. This

change is consistent with the International Building Code Requirements in the 2012 and 2015 editions. There is a plethora of data available to support this change, including the following:

If there is any question as to whether the citizenry in the United States is acting early to extinguish incipient fires, the report of the U.S. Consumer Products Safety Commission should put those doubts to rest. According their report, only 5-10 percent of fires are reported to fire departments in the U.S. This is a clear indication that people are extinguishing fires rather than just calling the fire department. We submit that, since people are, in fact, extinguishing fires in their incipient stage on a very regular basis, the code should provide for the proper tools to do so - that is, maintain the requirements for portable extinguishers. According this report, people used portable extinguishers on 371,000 residential fires in the U.S. annually. In this same report, the agency stated that extinguishers were effective in 80 percent of the cases where they were used. The entire 234 page report, published in 2009, can be found at <https://www.cpsc.gov/PageFiles/105297/UnreportedResidentialFires.pdf>.

The NFPA report on fires in sprinklered buildings published in 2010 states that, in fires reported in buildings equipped with sprinkler systems, the fire didn't grow large enough to activate the sprinklers in 65 percent of the cases (page 11). For Assemblies, the percentage was 68%; for educational occupancies, the percentage was 83% and for offices (Group B), the percentage was 75%. Based upon this data, Virginia has chosen to reduce the number of portable extinguishers in occupancies where the statistics show they can be of above average benefit. The fires cited in this report were large enough to be reported to the fire department; the sprinkler systems were operational and would have activated if the fire had grown larger, but were extinguished or otherwise mitigated prior to sprinkler activation. This report verifies that people are intervening when a fire is small, saving the property owner(s) substantial sums of money by putting the fire out before it grows larger, doing more damage. and before sprinklers activate. Some if these fires are extinguished using fire extinguishers; others are being extinguished with makeshift means. Extinguishers are the appropriate tool to use on incipient fires, and are far safer than other means that may be employed. Providing portable fire extinguishers in facilities greatly enhances safety, including the safety of those who choose to extinguish a fire in its incipient phase; extinguishers should be required in all buidlings.

Cost is always a consideration when determining whether fire protection should be provided. Portable fire extinguishers are, without a doubt, one of the most cost effective layers of fire protection available. A life cycle cost analysis was conducted in 2014 by Richard Bukowski, P.E, then working for RJA. In that study, the actual cost of portable extinguishers in several facilities was used to determine the real-world cost of these devices. Using 12 facilities, and the costs of initial purchase, installation, monthly and annual maintenance, as well as all associated maintenance required by NFPA-10 (the standard referenced in ICC Codes) was compiled and analyzed. According to this study, the actual costs of portable extinguishers in these facilities ranged from \$.015 (one and one half cent) to \$.04 (four cents) per square foot per year. His study also states that, if a facility was able to utilize the minimum number of extinguishers required by the Codes based upon coverage of an area, the costs would be between \$.005 (one half cent) and \$.01 (one cent) per square foot per year.

I would challenge anyone to document any layer of fire safety with such a small cost that returns such a great benefit.

Code Committees have rightly demanded data to support decisions related to code changes. I am unaware of a single data point for the removal of portable extinguisher requirements from the code; however, there is abundant data to support requiring these devices throughtout buildings and facilities.

Attachments:

[NFPA Sprinkler Report](#)

[Fact Sheet](#)

Cost Impact: This change will increase the cost of construction in Groups A, B, and E occupancies that are equipped with quick response sprinklers. The cost increase is between a half cent per square foot per year to approximately 4 cents per square foot per year, depending upon the type of extinguisher chosen, the contractor used, the floorplan of the building, etc. The savings in fire damage should more than offset this low cost.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: None

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

CB-906.1 cdpVA-15

Public Comments for CB-906.1 cdpVA-15 : CB-906.1-TIDWELL450

Glenn Dean

Public Comments for Proposal Id : 450

1 Comment(s)

By **Glenn Dean**

08-26-2016 09:22:39

This proposal should be approved as submitted. The proponent has correctly stated the state change was adopted without the benefit of data to support such deletion. In fact, there are a significant number of published reports on the successes of occupants using portable fire extinguishers that far outweigh any reports of failures and vandalism. For this reason alone the proposal is justified.

F-102.1.1 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2012 Virginia Statewide Fire Prevention Code

102.1.1 Changes.

A building or structure shall not be used or occupied, and a change in the existing use or occupancy classification of a building or structure or portion thereof shall not be made, until the building official has issued an appropriate certificate of occupancy.

-

Reason: For 2015 code, change to wording from IBC, so use per Certificate of Occupancy issued by building official. Current code limits fire official from citing violation when use changes unless only within same use group (this section) or declare building unsafe due to changed use (section 110.4). Change enables fire official to require customer get appropriate Certificate of Occupancy from building official when use changes. Fire code applied base on Certificate of Occupancy, as approved by building official, thus when use changes, need new Certificate of Occupancy as document changed use allowed by building official.

Cost Impact: No construction cost, merely permit process cost for new Certificate of Occupancy when use changes.

Workgroup Recommendation

Workgroup 1 Recommendation Recommendation: Consensus for Disapproval

Workgroup 1 Reason:

March 23rd-VBCOA admin committee will review and work with proponent.

July 7th-language is problematic Glen Dean, Rick Witt opposes-consensus for disapproval

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-102.1.1 cdpVA-15

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F-403.5 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

403.5 Group E occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. Group E occupancies shall comply with Sections 403.5.1 through 403.5.3. The fire official may regulate where more than five occupants under the age of 2 1/2 years old may occupy in parts of building not protected by an approved automatic sprinkler system.

Reason: Code considers children under the age of 2 1/2 years old to need assistance to escape. Some schools are having children under the age of 2 1/2 years old, who are children of the school's students or staff, in that school with their parent. Parts of older schools with such very young children lack the sprinkler systems of newer schools. The building code allows such very young children in existing schools. The fire official needs authority to regulate so these very young children who need assistance to escape are located where fast escape easily arranged. The building code requires a child daycare to limit these very young children to rooms with an exit directly to an exterior for quick egress, or have sprinkler protection. Code allows up to five children under 2 1/2 years old in many facilities, as a few adults can evacuate those youngsters. This change does not empower the fire official to require building feature changes, such as installing an exit or sprinklers where not existing. The code requires school to have a fire safety and evacuation plan which is approved by the fire official. This change clarifies fire official's authority to regulate where over five children under 2 1/2 years old may occupy within unsprinklered areas of older schools.

Cost Impact: No impact on cost of construction, nor require cost to modify building features. Merely regulates activities inside school.

Workgroup Recommendation

Workgroup 1 Recommendation Recommendation: Consensus for Disapproval

Workgroup 1 Reason: No support. Would fall under a change of use (I-4). Also, too far reaching and may extend beyond this scenario.

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: Group B level of exit discharge-Sean, Stills-exception to I-4, there is something in the building code and a change of occupancy has occurred without building dept being notified.

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-403.5 cdpVA-15

F-505.3 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

505.3 Address usage Only an officially approved address shall be used to identify that site. Exception: Mailing address may be to a post office box, and to another approved address.

Reason: Using different addresses confuses records and in an emergency can have serious consequences. Some sites may have the main and some alternate approved addresses. This change intends to stop use of addresses other than as approved, which confuse on accurately locating site. Beyond merely posting a correct address number, customers should not post other addresses, nor use different addresses which result in confusion on site location. Exception allows mail to post office box, or to another approved address. Records such as Certificate of Occupancy from building official, enhanced 911 for land line phone locations, and underground storage tanks are examples of need for proper address.

Cost Impact: No cost impact on construction. Customers using unofficial addresses may incur cost to change letterhead, web site data, and some records.

Workgroup Recommendation

Workgroup 1 Recommendation Recommendation: Consensus for Disapproval

Workgroup 1 Reason: Comments: Glenn Dean - Not a code locality problem. Needs to be addressed somewhere else.
No support. Not a code issue.

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: No support-required by construction code-maybe maint code?

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-505.3 cdpVA-15

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F-901.6.1 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

901.6.1 Standards. *Fire protection systems* shall be inspected, tested and maintained in accordance with the referenced standards *listed* in Table 901.6.1. Standpipe pressure reducing valves with adjustable setting shall be at pressure approved by fire official, as part of five year flow test.

Reason: NFPA 14 requires pressure reducing valves where discharge pressure over 175 psi (typically on lower levels in high rise building). Fire hose is harder to handle with high pressure, and standpipe discharges using pressure reducing valves often in narrow and turning spaces of stairwells. Fire official should have say in standpipe discharge pressure which firefighters use. NFPA 25 requires flow test standpipe discharges every five years, so easy time for adjustable pressure reducing valves to test at pressure per fire official.

Cost Impact: No construction cost impact. Minimal labor to learn pressure approved by local fire official and maybe adjust settings on existing devices when perform code required 5-year flow test.

Workgroup Recommendation

Workgroup 1 Recommendation Recommendation: Consensus for Disapproval

Workgroup 1 Reason: More of a local issue. No support.

Comments: Cindy Davis - Rather than opening this again, can we put this to the same general agreement that it will be addressed on a local basis.

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: Discussed in Workgroup 1
No support - consensus for disapproval

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-901.6.1 cdpVA-15

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F-1030 cdpVA-15

Proponent : William Andrews, Representing City of Richmond, Fire Marshal's office (william.andrews@richmondgov.com)

2015 International Fire Code

SECTION 1030 EMERGENCY ESCAPE AND RESCUE

1030 Windows

[BE] 1030.1 General. ~~In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings~~ Existing windows in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) and Group R-3 occupancies. ~~Basements~~ basements and sleeping rooms below the fourth story above *grade plane* shall have ~~at least one exterior~~ be maintained to operate as installed, and serve as an emergency escape and rescue opening ~~in accordance with this section~~ where designated by the fire official. Existing windows above the third floor, or where inappropriate for occupants to open enough to get out may be arranged to open only a few inches, for emergency access to fresh air if trapped by fire. ~~Where basements contain one or more sleeping rooms originally so arranged, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such~~ such openings shall ~~open directly into a public way or to a yard or court that opens~~ allow escape to a public way.

Exceptions:

1. ~~Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.~~
2. ~~Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.~~
3. ~~Basements without habitable spaces and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.~~

[BE] 1030.2.1 Minimum dimensions. The minimum net clear opening height dimension ~~shall~~ should be 24 inches (610 mm). The minimum net clear opening width dimension ~~shall~~ should be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

[BE] 1030.3 Maximum height ~~Height from floor.~~ Height from floor. The fire official may order arrangements to allow escape from ~~Emergency~~ emergency escape and rescue openings ~~shall have~~ with the bottom of the clear opening ~~not~~ not greater than 44 inches (1118 mm) measured from the interior floor or the exterior egress surface.

[BE] 1030.5 Window wells. An emergency escape and rescue opening with a finished sill height below the adjacent ground level shall be ~~provided with a window well~~

in accordance with Sections 1030.5.1 and 1030.5.2 maintained as approved by the building official.

~~**[BE] 1030.5.1 Minimum size.** The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the *emergency escape and rescue opening* to be fully opened.~~

~~**[BE] 1030.5.2 Ladders or steps.** Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an *approved* permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the *emergency escape and rescue opening*. Ladders or steps required by this section are exempt from the *stairway* requirements of Section 1011.~~

Reason: The Virginia fire code cannot require more than the building code, thus wordage which requires physical features in addition to such is void within Virginia's Fire Prevention Code. Beyond use group R-2 and R-3, fire officials need authority to require good maintenance of windows originally installed able to open, and designate existing windows as as emergency escape, or access fresh air where escape unsafe. Section 1031.7 inadequately addresses this since in many cases the fire official has no records on which windows or openings are "required *emergency escape and rescue openings*" in effect at time of construction (many years ago).

Cost Impact: No impact on construction cost, since fire code only on maintenance of built features.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: Comments: Addressed at Workgroup 1 William Andrews - No technical changes, what is an escape window?

No Support, move forward consensus for disapproval

Workgroup 1 Recommendation Recommendation: Consensus for Disapproval

Workgroup 1 Reason: Richard Bartell - How can we support this since this is already in code?
Why
can't you use the language already in the code?
No support. Contains retrofit requirements.

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-1030 cdpVA-15

Public Comments for F-1030 cdpVA-15 : F-1030-ANDREWS145

William Andrews

Public Comments for Proposal Id : 145

1 Comment(s)

By William Andrews

07-11-2016 16:18:14

Reply to reasons workgroup rejects: Current 2012 section 1029.1 specifies Group R-2. Goal to expand, so applicable to I-1, R-1, and other uses where people sleep (not intend to invade privacy of single family home). Especially vital in such as assisted living facilities or hotels, which might not be sprinklered. If care facility has sprinklers, and not want window to open enough for escape, fire official needs ability to regulate window to be openable a few inches so occupant can get fresh outside air in fire emergency and can't escape, with room filling with smoke.

"Emergency escape and rescue openings" defined, goal of request to allow fire official deem which windows need to be maintained as such, for emergency escape. Without window designated as such, not violation to obstruct with furniture. Without "EXIT" sign per building code, fire official often unable to require as part of means of egress. We encourage people to think of two ways to escape, one may be window.

Not require retrofit, merely maintain existing windows so allows easy emergency escape. Current code applies to designated windows, but fire official often has no record which, if any windows so designated (under building plans not available to fire official). Many building may have no such designated windows; thus this to enable fire official to designate and require window maintenance to allow emergency escape. Where windows not easy for occupant to escape via window due to level between window and floor or outside grade above window, reasonable for fire official to require facility to have portable item to allow occupant to use as step. Not require retrofit structure, yet arrange so can escape via window building code intended with such capability.

Welcome discussing. William Andrews, Assistant Fire Marshal, City of Richmond, desk phone 804 646 0621, email: William.Andrews@RichmondGov.com

F-1030.1 cdpVA-15

Proponent : Andrew Milliken, Representing Stafford County Fire Marshall's Office (amiliken@staffordcountyva.gov)

2015 International Building Code

1030.1 General. In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) ~~and~~, Group R-3 and R-4 occupancies. *Basements* and sleeping rooms below the fourth story above *grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the *basement*. Such openings shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

- **Exceptions:**

1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
2. *Emergency escape and rescue openings* are not required from *basements* or sleeping rooms that have an *exit door* or *exit access door* that opens directly into a *public way* or to a *yard*, *court* or exterior exit balcony that opens to a *public way*.
3. *Basements* without *habitable spaces* and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have *emergency escape and rescue openings*.

2015 International Fire Code

[BE] 1030.1 General. In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) ~~and~~, Group R-3 and R-4 occupancies. *Basements* and sleeping rooms below the fourth story above *grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the *basement*. Such openings shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

- **Exceptions:**

1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
2. *Emergency escape and rescue openings* are not required from *basements* or sleeping rooms that have an *exit door* or *exit access door* that opens directly into a *public way* or to a *yard*, *court* or exterior exit balcony that opens to a *public way*.
3. *Basements* without *habitable spaces* and having not more than 200

square feet (18.6 m²) in floor area shall not be required to have *emergency escape and rescue openings*.

Reason: The intent of this proposal is to clarify that the requirements of emergency escape and rescue openings apply to R-4 occupancies. Section 310.6 of the 2012 Virginia Construction Code and 2015 International Building Code indicate that, "group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code." Furthermore, section 403.9.3.6 of the 2012 Virginia Statewide Fire Prevention Code and 403.10.3.6 of the 2015 International Fire Code indicate that group R-4 occupancies shall include emergency escape and rescue windows as part of building evacuation procedures. This proposal does not add any new requirements but rather simply clarifies that emergency escape openings are essential for effective evacuation from and are required for R-4 occupancies. It also helps to provide continuity between Virginia Construction Code requirements for egress and Fire Prevention Code requirements for evacuation.

Cost Impact: This proposal does not impact cost as it is only editorial and does not add any new requirements.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Consensus for Disapproval

Workgroup 2 Reason: 1st meeting: Andrew Milliken gave an overview of his proposal, Cindy Davis asked if everyone was in agreement with that intent to adding the R-4 language to this section?

Judy Hackler asked whether or not it would be a new classification or retrofit?

Cindy Davis - **Moving forward as pending.**

2nd meeting: consensus for disapproval

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

F-1030.1 cdpVA-15

F-2311.7 cdpVA-15

Proponent : William Andrews, Representing City of Richmond, Fire Marshal's office (william.andrews@richmondgov.com)

2015 International Fire Code

2311.7 Repair garages for vehicles fueled by lighter-than-air fuels. Lighter-than-air motor fuel systems shall not be worked on in a building, and no open flame or welding shall occur in that part of the building where a vehicle with lighter-than-air motor fuel systems is located, unless in compliance with the appropriate building code. Where equipped, ventilation systems shall be operated when working on vehicles inside, unless interlock system which is maintained per applicable code.

Repair garages for the conversion and repair of vehicles that use CNG, liquefied natural gas (LNG), hydrogen or other lighter-than-air motor fuels shall be in accordance with Sections 2311.7 through 2311.7.2.3 in addition to the other requirements of Section 2311.

- **Exceptions:**

1. Repair garages where work is not performed on the fuel system and is limited to exchange of parts and maintenance not requiring open flame or welding on the CNG-, LNG-, hydrogen- or other lighter-than-air-fueled motor vehicle.
2. Repair garages for hydrogen-fueled vehicles where work is not performed on the hydrogen storage tank and is limited to the exchange of parts and maintenance not requiring open flame or welding on the hydrogen-fueled vehicle. During the work, the entire hydrogen fuel system shall contain a quantity that is less than 200 cubic feet (5.6 m³) of hydrogen.

Reason: The 2000 IFC section 2210.1 and current state fire code section 2311.7 required repair garages to comply with this section and the IBC. Repair garages for vehicles that use more than one type of fuel shall comply with the applicable provisions of this section for each type of fuel used.

IFC commentary notes repair garages that install and repair lighter than air motor fuel systems must be equipped with proper ventilation and gas detection systems.

While Virginia fire officials cannot require building features of ventilation or gas detection system, and edit committee recommends removing building features from Chapter 23 and put in appendix for reference, the fire code should regulate safety of activity involving such hazard inside buildings approved for different risks.

As state plans to edit out most building code parts in the fire code, replacing with generic "maintain in accordance with the applicable building code", recommend state fire code change to forbid working on lighter than air fuel systems inside unless building approved for such by building code. Garages may continue to work on rest of vehicle, but not use open flame or weld when lighter than air fuel vehicle inside; unless comply with building code for such fuel leak hazard.

State editing committee proposing to delete all of section 2311.7 on topic except changing so reads "The mechanical ventilation system shall be maintained in accordance with the applicable

building code." My recent emails ask they amend proposals so fire code also requires USING ventilation system when working on vehicles, since system maintenance per building code not require when ventilation fan on. Fire code has exceptions about continuous fans, thus change effort to allow such.

Similar to fire code section 2311.7, 2015 IBC section 406.8.5 requires repair garages for vehicles fueled by non-odorous gases such as hydrogen or LNG to have gas detection system, which upon activation turns on alarm and ventilation, and turns off heaters. Example of need for garages to comply with specific building code features before work on lighter than air fuel systems inside.

Most existing repair garages built for working on gasoline and diesel fuel vehicles. Change in fuel type (lighter than air) changes occupancy hazard, thus needs appropriate building safety features.

When heavier than air vapors hazard, ignition sources such as flame heater are high. Adding lighter than air ignitable vapors needs proper changing building features. Such vehicles rare beyond fleets with own service garages, yet safety needed for general garages which might be unfamiliar with safety issues for different systems.

Cost Impact: Minimal impact on most, but substantial if facility to work on lighter than vehicles air fuel systems inside.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Non-Consensus Final

Workgroup 2 Reason: Reason: The 2000 IFC Section 2210.1 and current state fire code Section 2311.7 required repair garages to comply with this section and the IBC. Repair garages for vehicles that use more than one type of fuel shall comply with the applicable provisions of this section for each type of fuel used.

William Andrews gave an overview of his proposal.

Comments:

Mike O'Connor asked if there was a definition for lighter than air?

Vernon Hodge stated that it was not a defined term.

William Lloyd stated he supported Bill's proposal. He had problems with this in Virginia Beach.

Sean Farrell stated he was not in opposition, but asked if this language was going into the SFPC? What is the intent? He also stated if we were not introducing technical code then his comment was not applicable.

Johnna Grizzard said she had problems with the grammatical language.

Bob Adkins stated he thought this was unenforceable.

Cindy Davis said it seems there is general support for this however, the sentence structure needs to be tweaked.

Emory Rodgers stated there seemed to be redundancy. It is still a little confusing.

Cindy Davis stated this will **Move forward as non-consensus**

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

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F-3103.2 cdpVA-15

Proponent : Andrew Milliken, Representing Stafford County Fire Marshall's Office (amiliken@staffordcountyva.gov)

2015 International Fire Code

~~**3103.2 Approval required.** Tents and membrane structures having an area in excess of 400 square feet (37 m²) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the *fire code official*.~~

~~**Exceptions:**~~

- ~~1. Tents used exclusively for recreational camping purposes.~~
- ~~2. Tents open on all sides that comply with all of the following:~~
 - ~~2.1. Individual tents having a maximum size of 700 square feet (65 m²).~~
 - ~~2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m²) total.~~
 - ~~2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.~~

Reason: The intent of this proposal is to eliminate conflicting language regarding when a permit is required. Section 107.2 of the Virginia Statewide Fire Prevention Code indicates the criteria for when permits are required to be obtained from the fire official, including for temporary tents and membrane structures. In fact, section 3103.4 highlights and guides the user of the code to this information already. Section 3103.2 comes from the model code and, although similar, conflicts with the criteria located in chapter 1. The conflicting sections are provided below for reference.

From Section 107.2:

Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Tents and air-supported structures that cover an area of 900 square feet (84 m²) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.

From Section 3103.2 (proposed to be deleted):

Tents and membrane structures having an area in excess of 400 square feet (37 m²) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Tents open on all sides which comply with all of the following:
 - 2.1. Individual tents having a maximum size of 700 square feet (65 m²).
 - 2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m²) total.
 - 2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.

Cost Impact: There is no cost impact associated with this proposal as it simply deletes conflicting language in the code.

Workgroup Recommendation

Workgroup 2 Recommendation Recommendation: Non-Consensus Final

Workgroup 2 Reason: Andrew Milliken gave an overview of his proposal.

Comments:

Monty Willaford stated that a number of fire marshal's across the state agree this is a good idea as far as eliminating the conflict, Sean Farrell stated the proposed base document retains this approval process but gives you a pointer.

Cindy Davis said this was an operational issue, 3103.4 is the pointer. So it shouldn't be a problem. Leave as is.

Cindy Davis said we will Move forward as non-consensus

Workgroup 1 Recommendation Recommendation: Non-Consensus Final

Workgroup 1 Reason: None

Board Decision

None

Board Decisions

- Approved
- Approved with Modifications
- Carryover
- Disapproved
- None

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